


STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT ☒**APPLICATION FOR PERMIT TO DRILL**

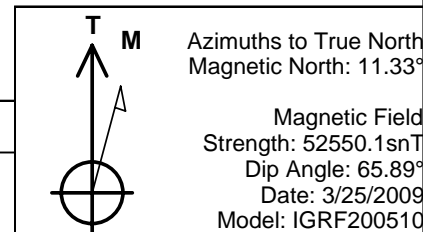
2. TYPE OF WORK DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>				1. WELL NAME and NUMBER NBU 1021-13H4AS		
4. TYPE OF WELL Gas Well Coalbed Methane Well: NO				3. FIELD OR WILDCAT NATURAL BUTTES		
6. NAME OF OPERATOR KERR-MCGEE OIL & GAS ONSHORE, L.P.				5. UNIT or COMMUNITIZATION AGREEMENT NAME NATURAL BUTTES		
8. ADDRESS OF OPERATOR P.O. Box 173779, Denver, CO, 80217				7. OPERATOR PHONE 720 929-6587		
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) ML 23608		11. MINERAL OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>		9. OPERATOR E-MAIL mary.mondragon@anadarko.com		
13. NAME OF SURFACE OWNER (if box 12 = 'fee')				12. SURFACE OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>		
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')				14. SURFACE OWNER PHONE (if box 12 = 'fee')		
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')				16. SURFACE OWNER E-MAIL (if box 12 = 'fee')		
18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS YES <input checked="" type="checkbox"/> (Submit Commingling Application) NO <input type="checkbox"/>		19. SLANT VERTICAL <input type="checkbox"/> DIRECTIONAL <input checked="" type="checkbox"/> HORIZONTAL <input type="checkbox"/>				
20. LOCATION OF WELL	FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
LOCATION AT SURFACE	652 FNL 1287 FEL	NENE	13	10.0 S	21.0 E	S
Top of Uppermost Producing Zone	2060 FNL 140 FEL	SENE	13	10.0 S	21.0 E	S
At Total Depth	2060 FNL 140 FEL	SENE	13	10.0 S	21.0 E	S
21. COUNTY UINTAH		22. DISTANCE TO NEAREST LEASE LINE (Feet) 140		23. NUMBER OF ACRES IN DRILLING UNIT 640		
		25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 510		26. PROPOSED DEPTH MD: 9647 TVD: 9100		
27. ELEVATION - GROUND LEVEL 5262		28. BOND NUMBER 22013542		29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE Permit #43-8496		

ATTACHMENTS**VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES**

<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER	<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN
<input type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)	<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER
<input checked="" type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)	<input checked="" type="checkbox"/> TOPOGRAPHICAL MAP
NAME Kathy Schneebeck-Dulnoan	TITLE Staff Regulatory Analyst
SIGNATURE	PHONE 720 929-6007
API NUMBER ASSIGNED 43047503400000	DATE 04/05/2009
APPROVAL	EMAIL Kathy.SchneebeckDulnoan@anadarko.com
 Permit Manager	

Proposed Hole, Casing, and Cement						
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)		
Prod	7.875	4.5	0	9289		
Pipe	Grade	Length	Weight			
	Grade I-80 LT&C	9647	11.6			

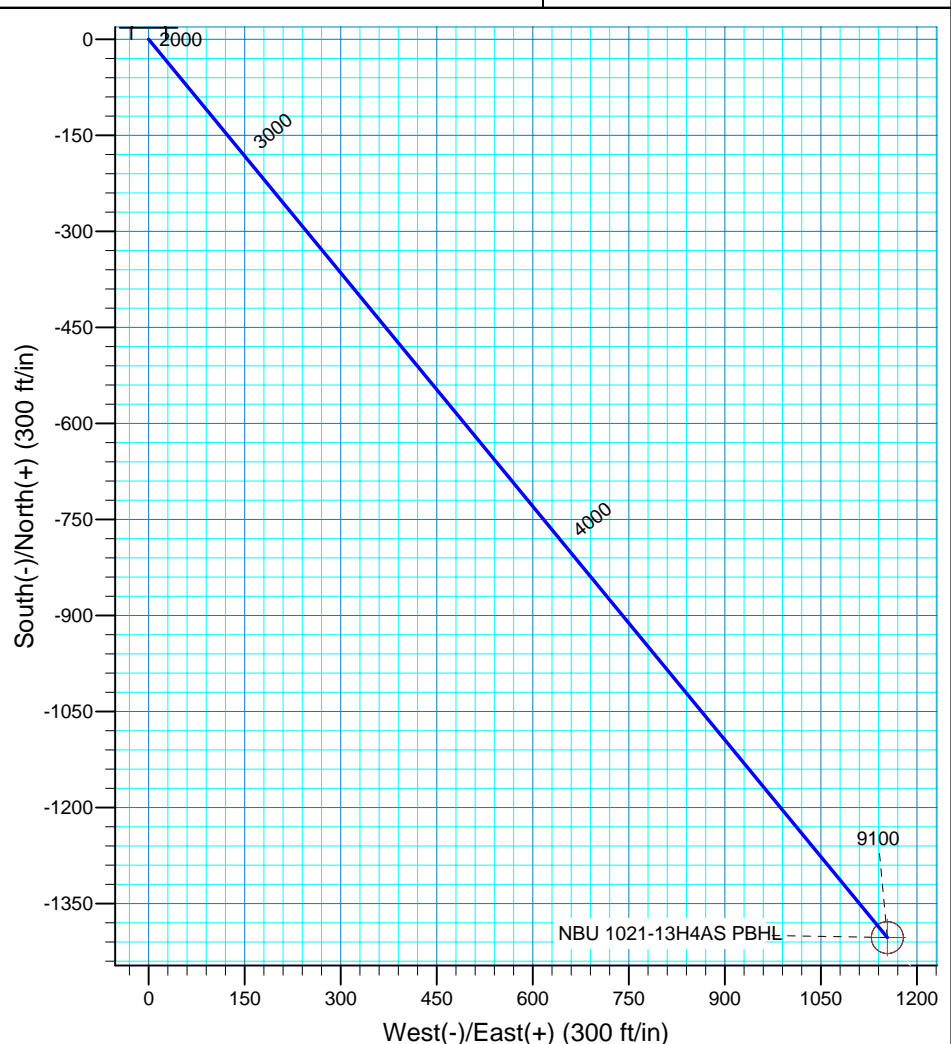
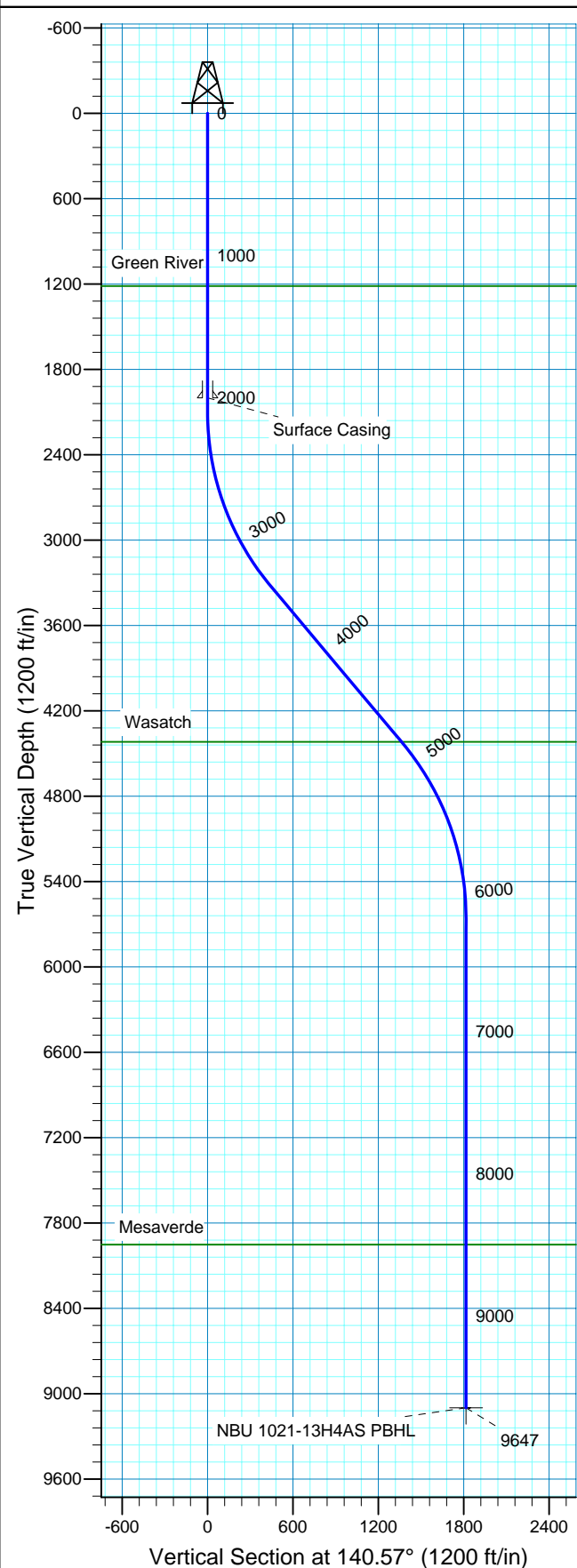
Proposed Hole, Casing, and Cement						
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)		
Surf	12.25	9.625	0	2200		
Pipe	Grade	Length	Weight			
	Grade J-55 LT&C	2200	36.0			



WELL DETAILS: NBU 1021-13H4AS

GL 5261' & RKB 18' @ 5279.00ft 5261.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	596539.69	2562227.81	39° 57' 13.850 N	109° 29' 39.356 W



FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1214.00	1214.00	Green River
4419.00	4858.01	Wasatch
7953.00	8500.34	Mesaverde

Plan: Plan #1 (NBU 1021-13H4AS/OH)

Created By: Laura Turner Date: 2009-03-25

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302
Location: Sec 1 T10S R21E
System Datum: Mean Sea Level
Local North: True

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2100.00	0.00	0.00	2100.00	0.00	0.00	0.00	0.00	0.00	0.00	
3433.33	40.00	140.57	3327.63	-345.13	283.79	3.00	140.57	446.82		
4869.27	40.00	140.57	4427.62	-1058.07	870.00	0.00	0.00	1369.82		
6202.60	0.00	0.00	5655.26	-1403.20	1153.79	3.00	180.00	1816.65		
9647.34	0.00	0.00	9100.00	-1403.20	1153.79	0.00	0.00	1816.65		NBU 1021-13H4AS PBHL

Kerr McGee Oil and Gas Onshore LP

Uintah County, UT NAD27

NBU 1021-13A Pad

NBU 1021-13H4AS

OH

Plan: Plan #1

Standard Planning Report

25 March, 2009

Scientific Drilling

Planning Report

Database:	EDM2003.16 MultiuserDB	Local Co-ordinate Reference:	Well NBU 1021-13H4AS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	GL 5261' & RKB 18' @ 5279.00ft
Project:	Uintah County, UT NAD27	MD Reference:	GL 5261' & RKB 18' @ 5279.00ft
Site:	NBU 1021-13A Pad	North Reference:	True
Well:	NBU 1021-13H4AS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Project	Uintah County, UT NAD27		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Utah Central 4302		

Site	NBU 1021-13A Pad, Sec 1 T10S R21E		
Site Position:		Northing:	596,539.70 ft
From:	Lat/Long	Easting:	2,562,227.81 ft
Position Uncertainty:	0.00 ft	Slot Radius:	in
		Latitude:	39° 57' 13.850 N
		Longitude:	109° 29' 39.356 W
		Grid Convergence:	1.28 °

Well	NBU 1021-13H4AS, 652' FNL 1287' FEL		
Well Position	+N/-S	0.00 ft	Northing: 596,539.69 ft
	+E/-W	0.00 ft	Easting: 2,562,227.81 ft
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft
		Latitude:	39° 57' 13.850 N
		Longitude:	109° 29' 39.356 W
		Ground Level:	5,261.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	3/25/2009	11.33	65.90	52,550

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	140.57

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,433.33	40.00	140.57	3,327.63	-345.13	283.79	3.00	3.00	0.00	140.57	
4,869.27	40.00	140.57	4,427.62	-1,058.07	870.00	0.00	0.00	0.00	0.00	
6,202.60	0.00	0.00	5,655.26	-1,403.20	1,153.79	3.00	-3.00	0.00	180.00	
9,647.34	0.00	0.00	9,100.00	-1,403.20	1,153.79	0.00	0.00	0.00	0.00	NBU 1021-13H4AS

Scientific Drilling

Planning Report

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Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	GL 5261' & RKB 18' @ 5279.00ft
Project:	Uintah County, UT NAD27	MD Reference:	GL 5261' & RKB 18' @ 5279.00ft
Site:	NBU 1021-13A Pad	North Reference:	True
Well:	NBU 1021-13H4AS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,214.00	0.00	0.00	1,214.00	0.00	0.00	0.00	0.00	0.00	0.00
Green River									
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
Surface Casing									
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 3.00									
2,200.00	3.00	140.57	2,199.95	-2.02	1.66	2.62	3.00	3.00	0.00
2,300.00	6.00	140.57	2,299.63	-8.08	6.64	10.46	3.00	3.00	0.00
2,400.00	9.00	140.57	2,398.77	-18.16	14.93	23.51	3.00	3.00	0.00
2,500.00	12.00	140.57	2,497.08	-32.24	26.51	41.74	3.00	3.00	0.00
2,600.00	15.00	140.57	2,594.31	-50.27	41.33	65.08	3.00	3.00	0.00
2,700.00	18.00	140.57	2,690.18	-72.20	59.37	93.48	3.00	3.00	0.00
2,800.00	21.00	140.57	2,784.43	-97.98	80.57	126.85	3.00	3.00	0.00
2,900.00	24.00	140.57	2,876.81	-127.54	104.87	165.12	3.00	3.00	0.00
3,000.00	27.00	140.57	2,967.06	-160.79	132.21	208.16	3.00	3.00	0.00
3,100.00	30.00	140.57	3,054.93	-197.64	162.51	255.87	3.00	3.00	0.00
3,200.00	33.00	140.57	3,140.18	-237.99	195.69	308.12	3.00	3.00	0.00
3,300.00	36.00	140.57	3,222.59	-281.74	231.66	364.75	3.00	3.00	0.00
3,400.00	39.00	140.57	3,301.91	-328.76	270.32	425.62	3.00	3.00	0.00
3,433.33	40.00	140.57	3,327.63	-345.13	283.79	446.82	3.00	3.00	0.00
Start 40.00° Hold At 3433.33' MD									
3,500.00	40.00	140.57	3,378.70	-378.23	311.00	489.67	0.00	0.00	0.00
3,600.00	40.00	140.57	3,455.31	-427.88	351.83	553.95	0.00	0.00	0.00
3,700.00	40.00	140.57	3,531.91	-477.53	392.65	618.23	0.00	0.00	0.00
3,800.00	40.00	140.57	3,608.52	-527.18	433.48	682.51	0.00	0.00	0.00
3,900.00	40.00	140.57	3,685.12	-576.83	474.30	746.79	0.00	0.00	0.00
4,000.00	40.00	140.57	3,761.73	-626.48	515.12	811.07	0.00	0.00	0.00
4,100.00	40.00	140.57	3,838.33	-676.13	555.95	875.35	0.00	0.00	0.00
4,200.00	40.00	140.57	3,914.93	-725.78	596.77	939.63	0.00	0.00	0.00
4,300.00	40.00	140.57	3,991.54	-775.43	637.60	1,003.90	0.00	0.00	0.00
4,400.00	40.00	140.57	4,068.14	-825.08	678.42	1,068.18	0.00	0.00	0.00
4,500.00	40.00	140.57	4,144.75	-874.73	719.25	1,132.46	0.00	0.00	0.00
4,600.00	40.00	140.57	4,221.35	-924.38	760.07	1,196.74	0.00	0.00	0.00

Scientific Drilling

Planning Report

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Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	GL 5261' & RKB 18' @ 5279.00ft
Project:	Uintah County, UT NAD27	MD Reference:	GL 5261' & RKB 18' @ 5279.00ft
Site:	NBU 1021-13A Pad	North Reference:	True
Well:	NBU 1021-13H4AS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,700.00	40.00	140.57	4,297.96	-974.03	800.90	1,261.02	0.00	0.00	0.00
4,800.00	40.00	140.57	4,374.56	-1,023.68	841.72	1,325.30	0.00	0.00	0.00
4,858.01	40.00	140.57	4,419.00	-1,052.48	865.40	1,362.59	0.00	0.00	0.00
Wasatch									
4,869.27	40.00	140.57	4,427.62	-1,058.07	870.00	1,369.82	0.00	0.00	0.00
Start Drop -3.00									
4,900.00	39.08	140.57	4,451.32	-1,073.18	882.43	1,389.39	3.00	-3.00	0.00
5,000.00	36.08	140.57	4,530.57	-1,120.28	921.15	1,450.36	3.00	-3.00	0.00
5,100.00	33.08	140.57	4,612.89	-1,164.11	957.19	1,507.11	3.00	-3.00	0.00
5,200.00	30.08	140.57	4,698.08	-1,204.56	990.45	1,559.47	3.00	-3.00	0.00
5,300.00	27.08	140.57	4,785.88	-1,241.50	1,020.83	1,607.30	3.00	-3.00	0.00
5,400.00	24.08	140.57	4,876.07	-1,274.85	1,048.24	1,650.47	3.00	-3.00	0.00
5,500.00	21.08	140.57	4,968.40	-1,304.50	1,072.63	1,688.86	3.00	-3.00	0.00
5,600.00	18.08	140.57	5,062.61	-1,330.38	1,093.91	1,722.36	3.00	-3.00	0.00
5,700.00	15.08	140.57	5,158.44	-1,352.42	1,112.02	1,750.89	3.00	-3.00	0.00
5,800.00	12.08	140.57	5,255.63	-1,370.55	1,126.93	1,774.37	3.00	-3.00	0.00
5,900.00	9.08	140.57	5,353.92	-1,384.73	1,138.59	1,792.72	3.00	-3.00	0.00
6,000.00	6.08	140.57	5,453.04	-1,394.91	1,146.97	1,805.91	3.00	-3.00	0.00
6,100.00	3.08	140.57	5,552.71	-1,401.08	1,152.04	1,813.89	3.00	-3.00	0.00
6,200.00	0.08	140.57	5,652.66	-1,403.20	1,153.78	1,816.64	3.00	-3.00	0.00
6,202.60	0.00	0.00	5,655.26	-1,403.20	1,153.79	1,816.65	3.00	-3.00	0.00
Start 0.00° Hold At 6202.60' MD									
6,300.00	0.00	0.00	5,752.66	-1,403.20	1,153.79	1,816.65	0.00	0.00	0.00
6,400.00	0.00	0.00	5,852.66	-1,403.20	1,153.79	1,816.65	0.00	0.00	0.00
6,500.00	0.00	0.00	5,952.66	-1,403.20	1,153.79	1,816.65	0.00	0.00	0.00
6,600.00	0.00	0.00	6,052.66	-1,403.20	1,153.79	1,816.65	0.00	0.00	0.00
6,700.00	0.00	0.00	6,152.66	-1,403.20	1,153.79	1,816.65	0.00	0.00	0.00
6,800.00	0.00	0.00	6,252.66	-1,403.20	1,153.79	1,816.65	0.00	0.00	0.00
6,900.00	0.00	0.00	6,352.66	-1,403.20	1,153.79	1,816.65	0.00	0.00	0.00
7,000.00	0.00	0.00	6,452.66	-1,403.20	1,153.79	1,816.65	0.00	0.00	0.00
7,100.00	0.00	0.00	6,552.66	-1,403.20	1,153.79	1,816.65	0.00	0.00	0.00
7,200.00	0.00	0.00	6,652.66	-1,403.20	1,153.79	1,816.65	0.00	0.00	0.00
7,300.00	0.00	0.00	6,752.66	-1,403.20	1,153.79	1,816.65	0.00	0.00	0.00
7,400.00	0.00	0.00	6,852.66	-1,403.20	1,153.79	1,816.65	0.00	0.00	0.00
7,500.00	0.00	0.00	6,952.66	-1,403.20	1,153.79	1,816.65	0.00	0.00	0.00
7,600.00	0.00	0.00	7,052.66	-1,403.20	1,153.79	1,816.65	0.00	0.00	0.00
7,700.00	0.00	0.00	7,152.66	-1,403.20	1,153.79	1,816.65	0.00	0.00	0.00
7,800.00	0.00	0.00	7,252.66	-1,403.20	1,153.79	1,816.65	0.00	0.00	0.00
7,900.00	0.00	0.00	7,352.66	-1,403.20	1,153.79	1,816.65	0.00	0.00	0.00
8,000.00	0.00	0.00	7,452.66	-1,403.20	1,153.79	1,816.65	0.00	0.00	0.00
8,100.00	0.00	0.00	7,552.66	-1,403.20	1,153.79	1,816.65	0.00	0.00	0.00
8,200.00	0.00	0.00	7,652.66	-1,403.20	1,153.79	1,816.65	0.00	0.00	0.00
8,300.00	0.00	0.00	7,752.66	-1,403.20	1,153.79	1,816.65	0.00	0.00	0.00
8,400.00	0.00	0.00	7,852.66	-1,403.20	1,153.79	1,816.65	0.00	0.00	0.00
8,500.00	0.00	0.00	7,952.66	-1,403.20	1,153.79	1,816.65	0.00	0.00	0.00
8,500.34	0.00	0.00	7,953.00	-1,403.20	1,153.79	1,816.65	0.00	0.00	0.00
Mesaverde									
8,600.00	0.00	0.00	8,052.66	-1,403.20	1,153.79	1,816.65	0.00	0.00	0.00
8,700.00	0.00	0.00	8,152.66	-1,403.20	1,153.79	1,816.65	0.00	0.00	0.00
8,800.00	0.00	0.00	8,252.66	-1,403.20	1,153.79	1,816.65	0.00	0.00	0.00
8,900.00	0.00	0.00	8,352.66	-1,403.20	1,153.79	1,816.65	0.00	0.00	0.00
9,000.00	0.00	0.00	8,452.66	-1,403.20	1,153.79	1,816.65	0.00	0.00	0.00
9,100.00	0.00	0.00	8,552.66	-1,403.20	1,153.79	1,816.65	0.00	0.00	0.00

Scientific Drilling

Planning Report

Database:	EDM2003.16 MultiuserDB	Local Co-ordinate Reference:	Well NBU 1021-13H4AS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	GL 5261' & RKB 18' @ 5279.00ft
Project:	Uintah County, UT NAD27	MD Reference:	GL 5261' & RKB 18' @ 5279.00ft
Site:	NBU 1021-13A Pad	North Reference:	True
Well:	NBU 1021-13H4AS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,200.00	0.00	0.00	8,652.66	-1,403.20	1,153.79	1,816.65	0.00	0.00	0.00
9,300.00	0.00	0.00	8,752.66	-1,403.20	1,153.79	1,816.65	0.00	0.00	0.00
9,400.00	0.00	0.00	8,852.66	-1,403.20	1,153.79	1,816.65	0.00	0.00	0.00
9,500.00	0.00	0.00	8,952.66	-1,403.20	1,153.79	1,816.65	0.00	0.00	0.00
9,600.00	0.00	0.00	9,052.66	-1,403.20	1,153.79	1,816.65	0.00	0.00	0.00
9,647.34	0.00	0.00	9,100.00	-1,403.20	1,153.79	1,816.65	0.00	0.00	0.00
TD at 9647.34 - NBU 1021-13H4AS PBHL									

Targets

Target Name	- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
NBU 1021-13H4AS P	- plan hits target center	0.00	0.00	9,100.00	-1,403.20	1,153.79	595,162.71	2,563,412.77	39° 56' 59.981 N	109° 29' 24.540 W
- Circle (radius 25.00)										

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
2,000.00	2,000.00	Surface Casing	9.625	13.500

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,214.00	1,214.00	Green River		0.00	
4,858.01	4,419.00	Wasatch		0.00	
8,500.34	7,953.00	Mesaverde		0.00	

Plan Annotations

	Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
			+N/-S (ft)	+E/-W (ft)	
	2,100.00	2,100.00	0.00	0.00	Start Build 3.00
	3,433.33	3,327.63	-345.13	283.79	Start 40.00° Hold At 3433.33' MD
	4,869.27	4,427.62	-1,058.07	870.00	Start Drop -3.00
	6,202.60	5,655.26	-1,403.20	1,153.79	Start 0.00° Hold At 6202.60' MD
	9,647.34	9,100.00	-1,403.20	1,153.79	TD at 9647.34

NBU 1021-13H4AS

Pad: NBU 1021-13A

Surface: 652' FNL, 1,287' FEL (NE/4NE/4)

BHL: 2,060' FNL 140' FEL (SE/4NE/4)

Sec. 13 T10S R21E

Uintah, Utah

Mineral Lease: ML 23608

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. – 2. **Estimated Tops of Important Geologic Markers:**
Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 – Surface	
Green River	1,214'	
Birds Nest	1,526'	Water
Mahogany	1,955'	Water
Wasatch	4,419'	Gas
Mesaverde	7,017'	Gas
MVU2	7,953'	Gas
MVL1	8,514'	Gas
TVD	9,100'	
TD	9,647'	

3. **Pressure Control Equipment** (Schematic Attached)

Please refer to the attached Drilling Program.

4. **Proposed Casing & Cementing Program:**

Please refer to the attached Drilling Program.

5. **Drilling Fluids Program:**

Please refer to the attached Drilling Program.

6. **Evaluation Program:**

Please refer to the attached Drilling Program.

7. **Abnormal Conditions:**

Maximum anticipated bottomhole pressure calculated at 9,647' TD, approximately equals 5,710 psi (calculated at 0.59 psi/foot).

Maximum anticipated surface pressure equals approximately 3,384 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. Variances:

Please refer to the attached Drilling Program.

Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- *Blowout Prevention Equipment (BOPE) requirements;*
- *Mud program requirements; and*
- *Special drilling operation (surface equipment placement) requirements associated with air drilling.*

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12-1/4 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 12-1/4 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 9-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

10. Other Information:

Please refer to the attached Drilling Program.



KERR-McGEE OIL & GAS ONSHORE LP
DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP	DATE	June 10, 2009		
WELL NAME	NBU 1021-13H4AS	TD	9,100'	TVD	9,647' MD
FIELD	Natural Buttes	COUNTY	Uintah	STATE	Utah
		ELEVATION	5,262' GL	KB 5,277'	
SURFACE LOCATION	NE/4 NE/4	652' FNL	1,287' FEL	Sec 13	T 10S R 21E
	Latitude:	39.953847	Longitude:	-109.494265	NAD 27
BTM HOLE LOCATION	SE/4 NE/4	2,060' FNL	140' FEL	Sec 13	T 10S R 21E
	Latitude:	39.949995	Longitude:	-109.490150	NAD 27
OBJECTIVE ZONE(S)	Wasatch/Mesaverde				
ADDITIONAL INFO	Regulatory Agencies: SITLA (Minerals), UDOGM (Surface), Tri-County Health Dept.				

GEOLOGICAL			MECHANICAL		
LOGS	FORMATION TOPS	DEPTH	HOLE SIZE	CASING SIZE	MUD WEIGHT
		20'		14"	
			12-1/4"	9-5/8", 36#, J-55, LTC	Air mist
<p>All water flows encountered while drilling will be reported to the appropriate agencies.</p>					
	Green River @	1,214'			
	Top of Birds Nest @	1,526'			
	Mahogany @	1,955'			
	Preset f/ GL @				
	2,200'	MD			
<p>Note: 12.25" surface hole will usually be drilled ±400' below the lost circulation zone (aka bird's nest). Drilled depth may be ±200' of the estimated set depth depending on the actual depth of the loss zone.</p>					
	Wasatch @	4,419'			
<p>Mud logging program TBD Cased hole logging program from TD - surf csg</p>					
			7-7/8"	4-1/2" 11.6# I-80 or equivalent LTC csg	Water / Fresh Water Mud 8.3-11.6 ppq
	Mverde @	7,017' TVD			
	MVU2 @	7,953' TVD			
	MVU1 @	8,514' TVD			
<p>Max anticipated Mud required 11.6 ppq</p>					
		9,100' TVD			
	TD @	9,647' MD			



KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS		
						BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'				3,520	2,020	453,000
SURFACE	9-5/8"	0 to 2,200	36.00	J-55	LTC	0.95	1.96	7.28
						7,780	6,350	201,000
PRODUCTION	4-1/2"	0 to 9,647	11.60	I-80	LTC	2.23	1.16	2.06

1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

2) MASP (Prod Casing) = Pore Pressure at TD - (0.22 psi/ft-partial evac gradient x TD)
 (Burst Assumptions: TD = 11.6 ppg) 0.22 psi/ft = gradient for partially evac wellbore
 (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoys.Fact. of water)
MASP 3,384 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD
 (Burst Assumptions: TD = 11.6 ppg) 0.59 psi/ft = bottomhole gradient
 (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoys.Fact. of water)
MABHP 5,710 psi

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl	215	60%	15.60	1.18
			+ 0.25 pps flocele				
Option 1							
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	380	0%	15.60	1.18
			+ 2% CaCl + 0.25 pps flocele				
			Premium cmt + 2% CaCl				
SURFACE			NOTE: If well will circulate water to surface, option 2 will be utilized				
Option 2	LEAD	1,700'	65/35 Poz + 6% Gel + 10 pps gilsonite	400	35%	12.60	1.81
			+ 0.25 pps Flocele + 3% salt BWOW				
	TAIL	500'	Premium cmt + 2% CaCl	180	35%	15.60	1.18
			+ 0.25 pps flocele				
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
PRODUCTION	LEAD	3,917'	Premium Lite II + 3% KCl + 0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	370	40%	11.00	3.38
	TAIL	5,730'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1400	40%	14.30	1.31

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. No centralizers will be used.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER:

John Huycke / Emile Goodwin

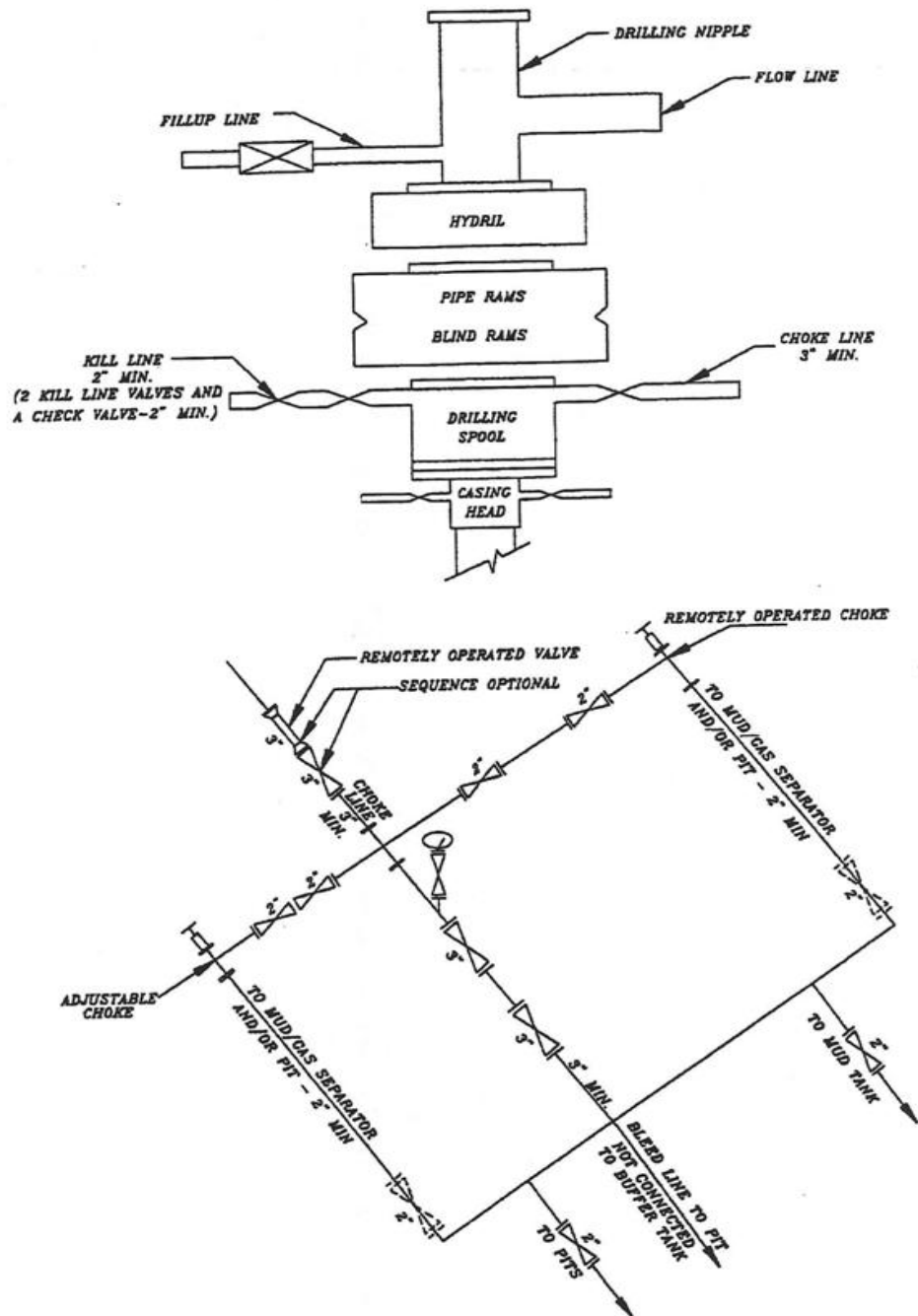
DATE:

DRILLING SUPERINTENDENT:

John Merkel / Lovel Young

DATE:

EXHIBIT A
NBU 1021-13H4AS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

WELL PAD INTERFERENCE PLAT

DIRECTIONAL PAD - NBU 1021-13A

LATITUDE & LONGITUDE		
Surface Position - (NAD 83)		
WELL	N. LATITUDE	W. LONGITUDE
1021-13B3CS	39°57'13.292" 39.953692°	109°29'42.349" 109.495097°
1021-13A3CS	39°57'13.436" 39.953732°	109°29'42.174" 109.495048°
1021-13H4CS	39°57'13.581" 39.953772°	109°29'41.999" 109.495000°
1021-13H4AS	39°57'13.725" 39.953812°	109°29'41.823" 109.494951°
Existing Well NBU 1021-13A	39°57'13.752" 39.953820°	109°29'42.143" 109.495040°

BOTTOM HOLE FOOTAGES

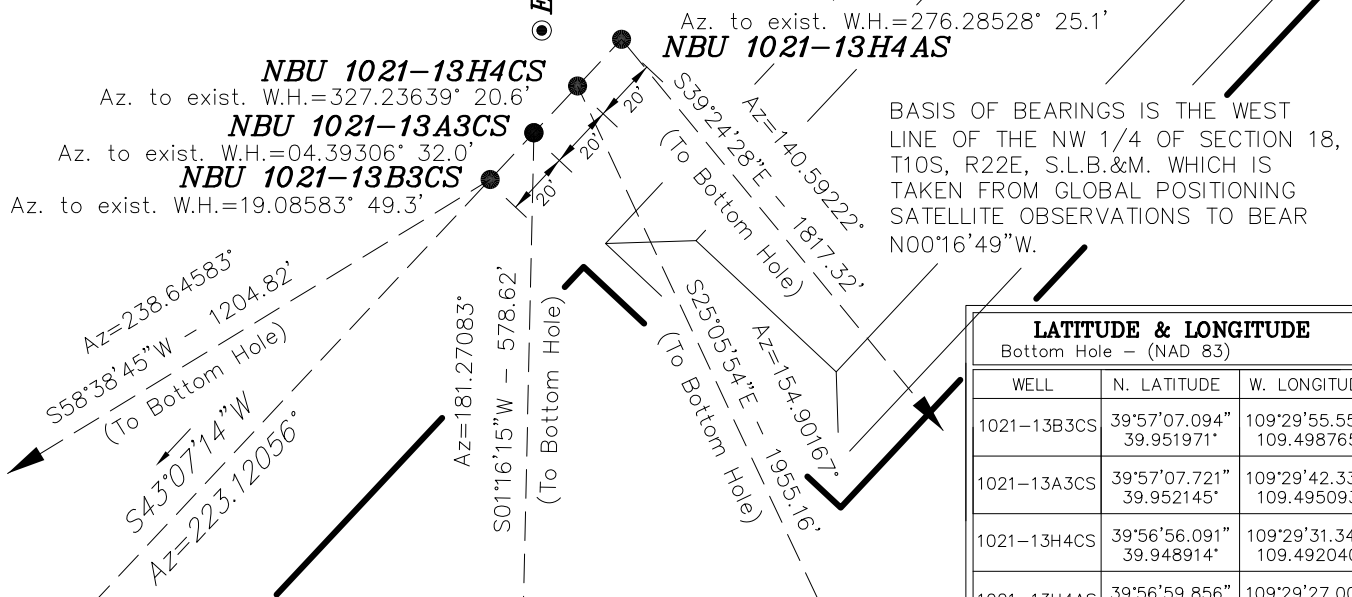
NBU 1021-13B3CS
1320' FNL, 2360' FEL

NBU 1021-13A3CS
1260' FNL, 1330' FEL

NBU 1021-13H4CS
2440' FNL, 480' FEL

NBU 1021-13H4AS
2060' FNL, 140' FEL

RELATIVE COORDINATES		
From Surface Position to Bottom Hole		
WELL	NORTH	EAST
1021-13B3CS	-627'	-1029'
1021-13A3CS	-578'	-13'
1021-13H4CS	-1771'	829'
1021-13H4AS	-1404'	1154'



BASIS OF BEARINGS IS THE WEST LINE OF THE NW 1/4 OF SECTION 18, T10S, R22E, S.L.B.&M. WHICH IS TAKEN FROM GLOBAL POSITIONING SATELLITE OBSERVATIONS TO BEAR N00°16'49\"W.

LATITUDE & LONGITUDE		
Surface Position - (NAD 27)		
WELL	N. LATITUDE	W. LONGITUDE
1021-13B3CS	39°57'13.417" 39.953727°	109°29'39.882" 109.494412°
1021-13A3CS	39°57'13.561" 39.953767°	109°29'39.707" 109.494363°
1021-13H4CS	39°57'13.706" 39.953807°	109°29'39.532" 109.494315°
1021-13H4AS	39°57'13.850" 39.953847°	109°29'39.356" 109.494265°
Existing Well NBU 1021-13A	39°57'13.877" 39.953855°	109°29'39.676" 109.494354°

SURFACE POSITION FOOTAGES:

NBU 1021-13B3CS
696' FNL, 1328' FEL

NBU 1021-13A3CS
682' FNL, 1314' FEL

NBU 1021-13H4CS
667' FNL, 1301' FEL

NBU 1021-13H4AS
652' FNL, 1287' FEL

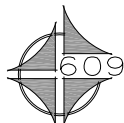
NBU 1021-13A (Existing Well Head)
650' FNL, 1312' FEL

LATITUDE & LONGITUDE		
Bottom Hole - (NAD 83)		
WELL	N. LATITUDE	W. LONGITUDE
1021-13B3CS	39°57'07.094" 39.951971°	109°29'55.555" 109.498765°
1021-13A3CS	39°57'07.721" 39.952145°	109°29'42.336" 109.495093°
1021-13H4CS	39°56'56.091" 39.948914°	109°29'31.345" 109.492040°
1021-13H4AS	39°56'59.856" 39.949960°	109°29'27.006" 109.490835°

LATITUDE & LONGITUDE		
Bottom Hole - (NAD 27)		
WELL	N. LATITUDE	W. LONGITUDE
1021-13B3CS	39°57'07.219" 39.952005°	109°29'53.087" 109.498080°
1021-13A3CS	39°57'07.846" 39.952179°	109°29'39.869" 109.494408°
1021-13H4CS	39°56'56.215" 39.948949°	109°29'28.879" 109.491355°
1021-13H4AS	39°56'59.981" 39.949995°	109°29'24.540" 109.490150°

Kerr-McGee
Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

NBU 1021-13B3CS, NBU 1021-13A3CS,
NBU 1021-13H4CS & NBU 1021-13H4AS
LOCATED IN SECTION 13, T10S, R21E,
S.L.B.&M. UTAH COUNTY, UTAH.

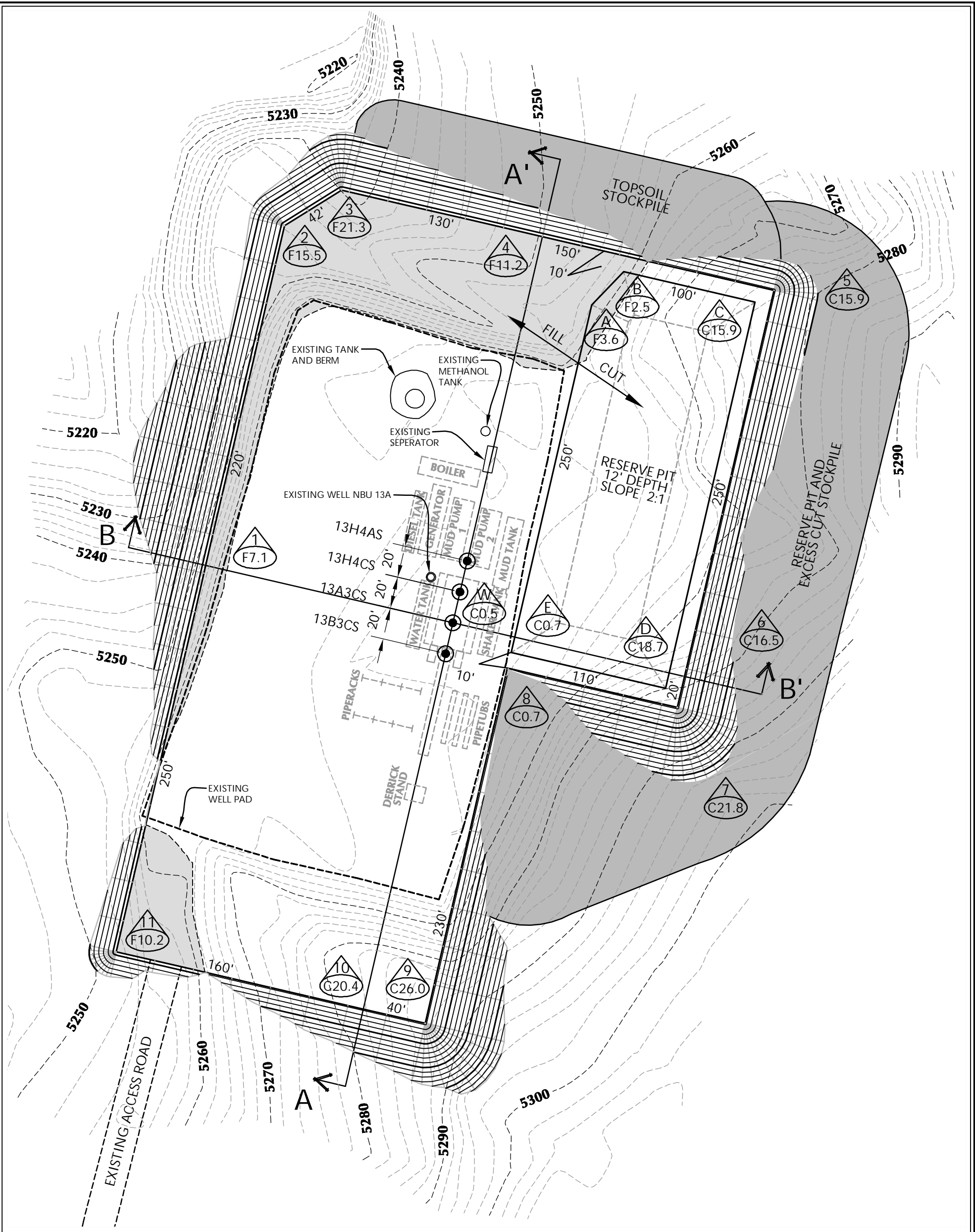


CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

DATE SURVEYED: 12-01-08	SURVEYED BY: M.S.B.
DATE DRAWN: 12-19-08	DRAWN BY: E.M.S.
	REVISED: 01-28-09

Timberline (435) 789-1365
Engineering & Land Surveying, Inc.
209 NORTH 300 WEST VERNAL, UTAH 84078

SHEET
5
OF 13



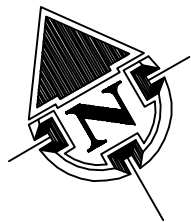
WELL PAD NBU 13A QUANTITIES

EXISTING GRADE @ CENTER OF WELL PAD = 5,261.9'
FINISHED GRADE ELEVATION = 5,261.4'
CUT SLOPES = 1.5:1
FILL SLOPES = 1.5:1

TOTAL CUT FOR WELL PAD = 17,310 C.Y.
TOTAL FILL FOR WELL PAD = 13,743 C.Y.
TOPSOIL @ 6" DEPTH = 1,951 C.Y.
EXCESS MATERIAL = 3,567 C.Y.
TOTAL DISTURBANCE = 3.88 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00
RESERVE PIT CAPACITY (2' OF FREEBOARD)
+/- 28,600 BARRELS
RESERVE PIT VOLUME
+/- 7,680 CY

WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)



HORIZONTAL 0 30 60 1" = 60'
2' CONTOURS

KERR-MCGEE OIL & GAS
ONSHORE L.P.
1099 18th Street - Denver, Colorado 80202

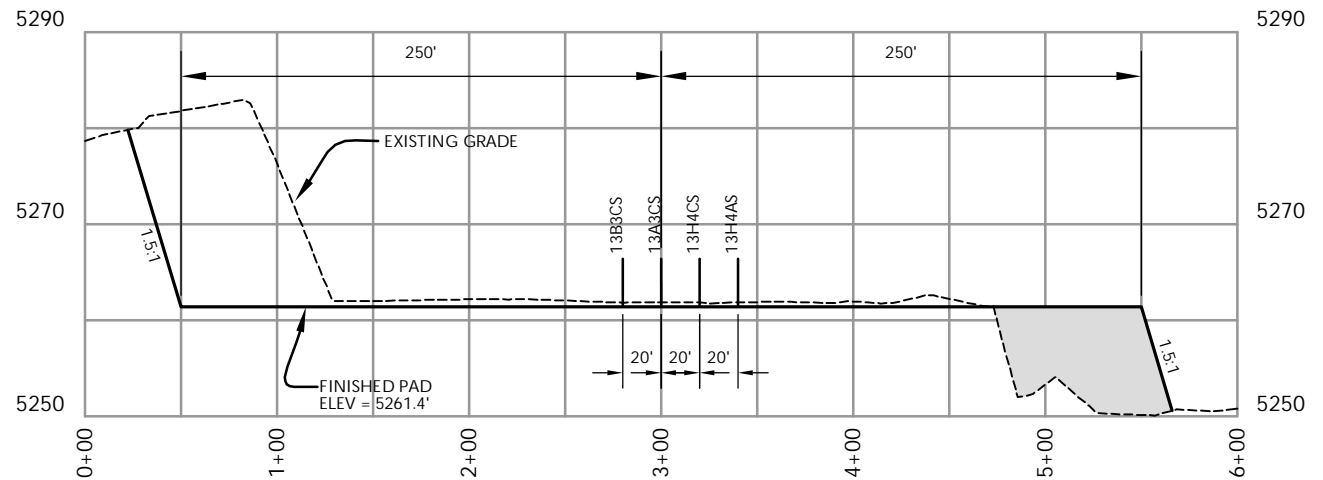


CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

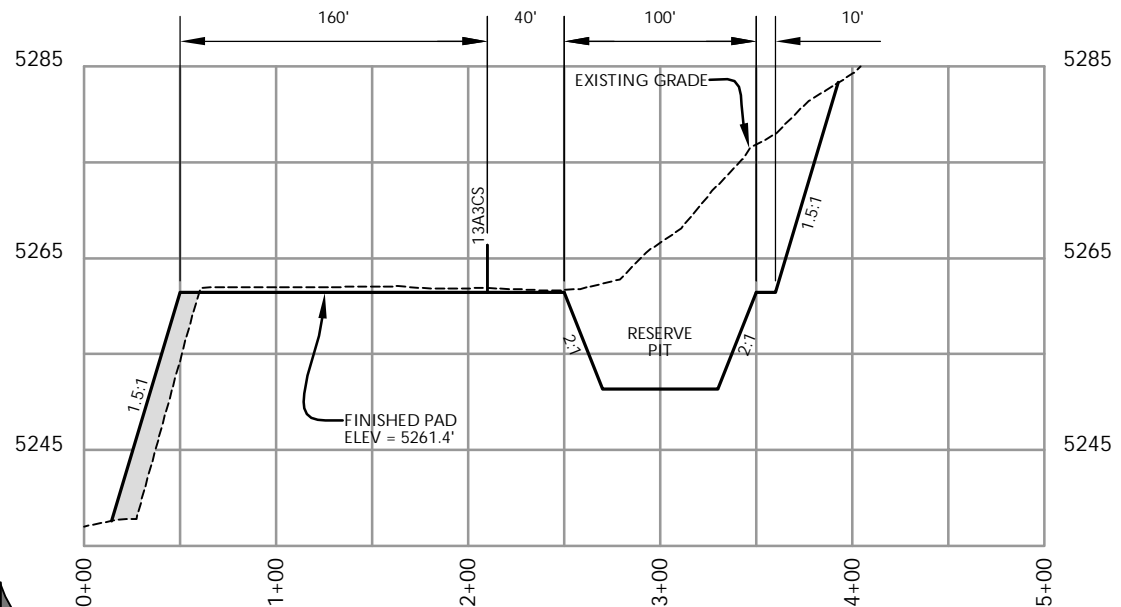
WELL PAD - LOCATION LAYOUT
NBU 1021-13B3CS, NBU 1021-13A3CS,
NBU 1021-13H4CS, NBU 1021-13H4AS
LOCATED IN SECTION 13, T.10S., R.21E.
S.L.B.&M., UINTAH COUNTY, UTAH

Scale: 1"=60'	Date: 2/6/09	SHEET NO:
REVISED:	BY DATE	6 6 OF 13

Timberline (435) 789-1365
Engineering & Land Surveying, Inc.
38 WEST 100 NORTH VERNAL, UTAH 84078

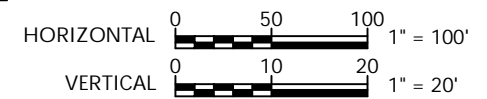


CROSS SECTION A-A'



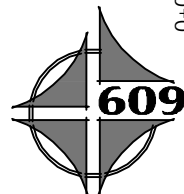
CROSS SECTION B-B'

NOTE: CROSS SECTION B-B' DEPICTS
MAXIMUM RESERVE PIT DEPTH.



**KERR-MCGEE OIL & GAS
ONSHORE L.P.**

1099 18th Street - Denver, Colorado 80202



CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

Scale: 1"=100'

Date: 2/6/09

SHEET NO:

REVISED:

BY
DATE

7
7 OF 13

WELL PAD - CROSS SECTIONS
NBU 1021-13B3CS, NBU 1021-13A3CS,
NBU 1021-13H4CS, NBU 1021-13H4AS
LOCATED IN SECTION 13, T.10S., R.21E.
S.L.B.&M., UINTAH COUNTY, UTAH

Timberline (435) 789-1365
Engineering & Land Surveying, Inc.
38 WEST 100 NORTH VERNAL, UTAH 84078

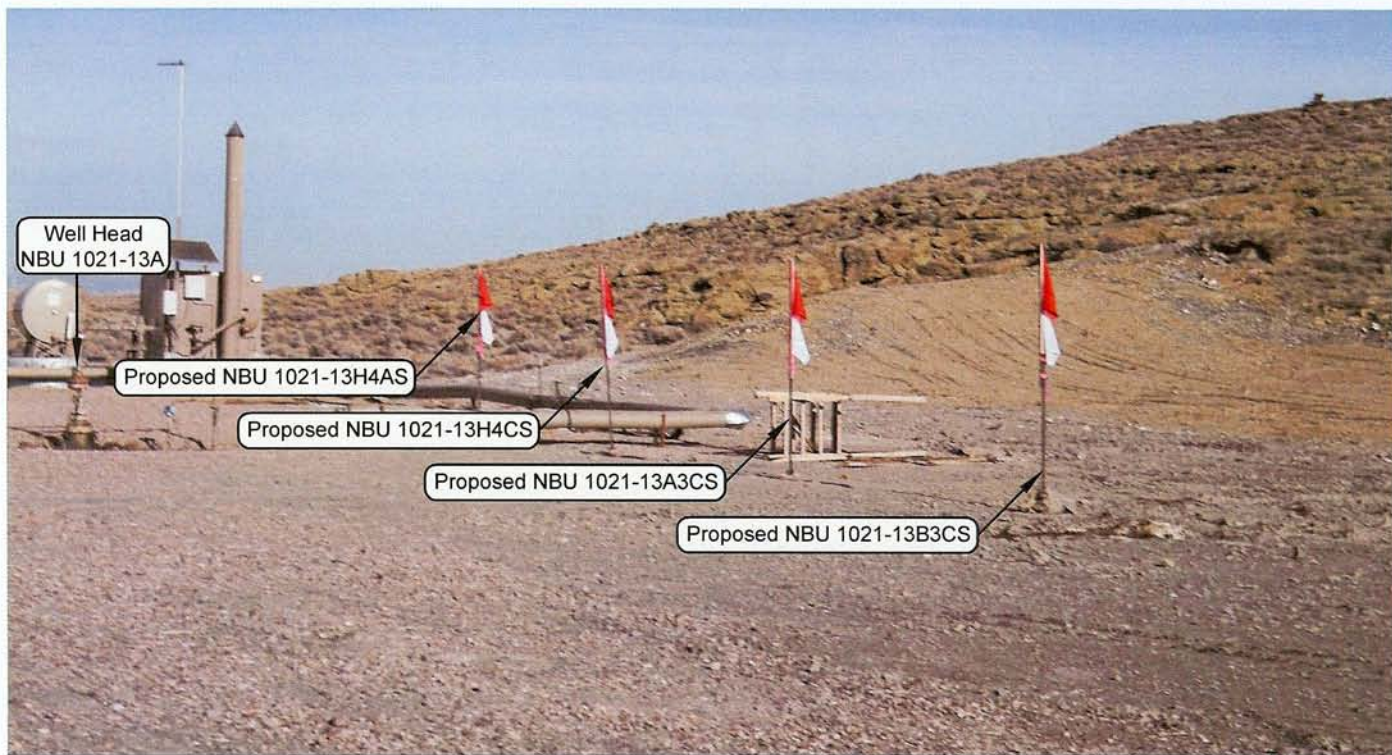


PHOTO VIEW: TO LOCATION STAKES

CAMERA ANGLE: NORTHEASTERLY

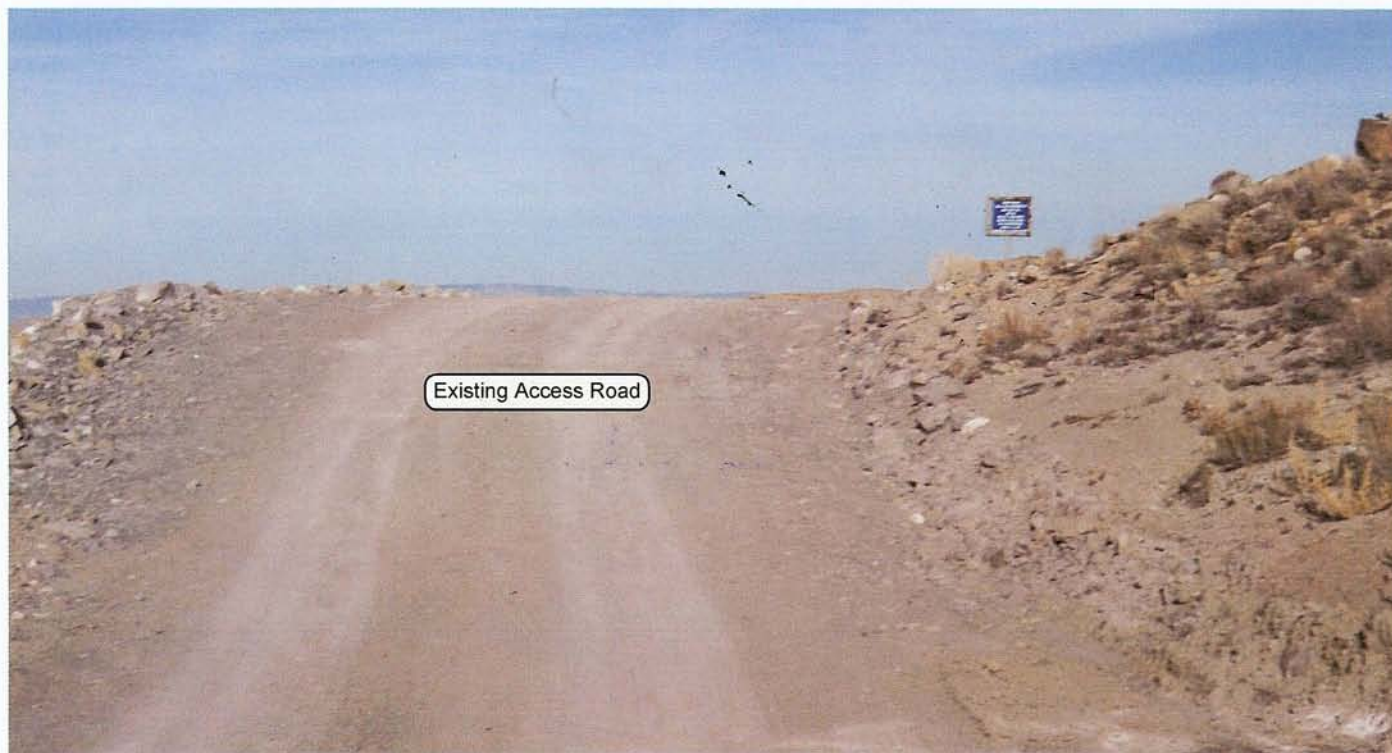


PHOTO VIEW: FROM EXISTING ROAD

CAMERA ANGLE: NORTHEASTERLY

Kerr-McGee
Oil & Gas Onshore, LP
 1099 18th Street - Denver, Colorado 80202

NBU 1021-13B3CS, NBU 1021-13A3CS,
 NBU 1021-13H4CS & NBU 1021-13H4AS
 LOCATED IN SECTION 13, T10S, R21E,
 S.L.B.&M. UINTAH COUNTY, UTAH.



CONSULTING, LLC
 371 Coffeen Avenue
 Sheridan WY 82801
 Phone 307-674-0609
 Fax 307-674-0182

LOCATION PHOTOS

TAKEN BY: M.S.B.

DRAWN BY: E.M.S.

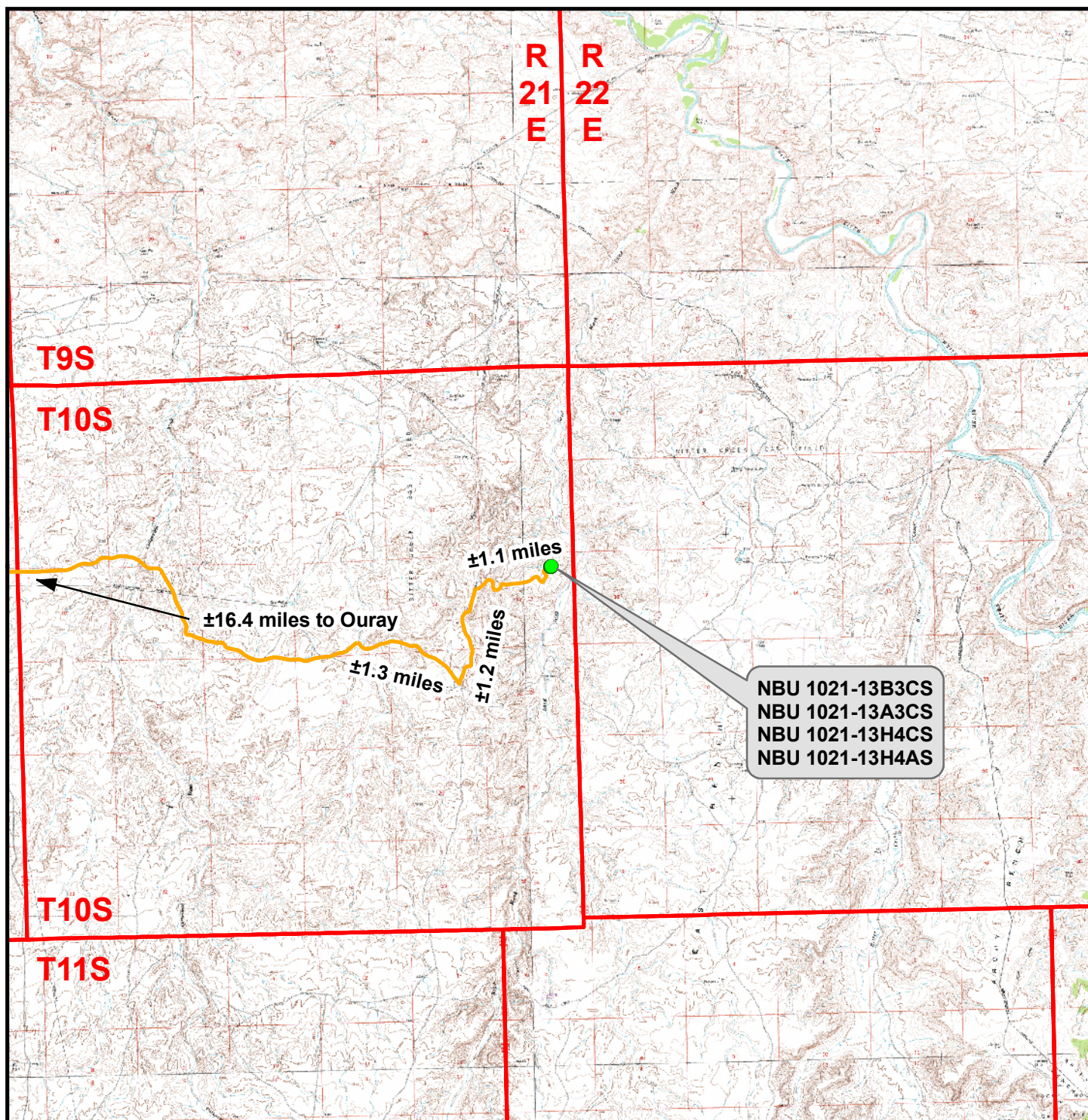
DATE TAKEN: 12-01-08

DATE DRAWN: 12-19-08

REVISED: 01-28-09

Timberline (435) 789-1365
 Engineering & Land Surveying, Inc.
 209 NORTH 300 WEST VERNAL, UTAH 84078

SHEET
8
OF 13



Legend

- Proposed Well Location
- Access Route - Proposed

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

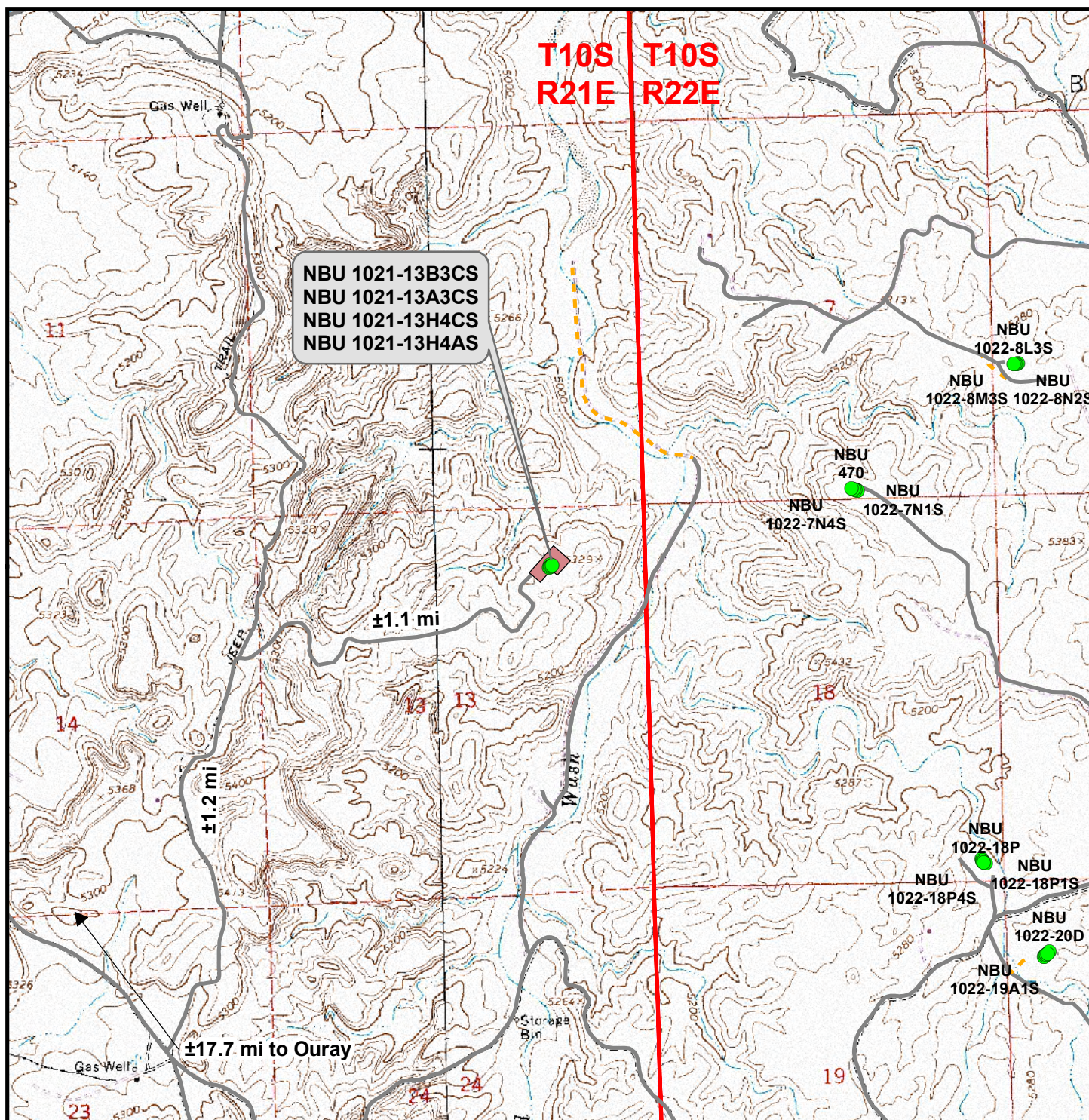
**NBU 1021-13B3CS, NBU 1021-13A3CS,
NBU 1021-13H4CS & NBU 1021-13H4AS**

Topo A

**Located In Section 13, T10S, R21E
S.L.B.&M., Uintah County, Utah**



Scale: 1:100,000	NAD83 USP Central	Sheet No:
Drawn: JELo	Date: 6 Feb 2009	9
Revised:	Date:	9 of 13



Legend

- Well - Proposed
- Well Pad
- Road - Proposed
- Road - Existing

Total Proposed Road Length: ±0ft

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

**NBU 1021-13B3CS, NBU 1021-13A3CS,
NBU 1021-13H4CS & NBU 1021-13H4AS**
Topo B
Located In Section 13, T10S, R21E
S.L.B.&M., Uintah County, Utah

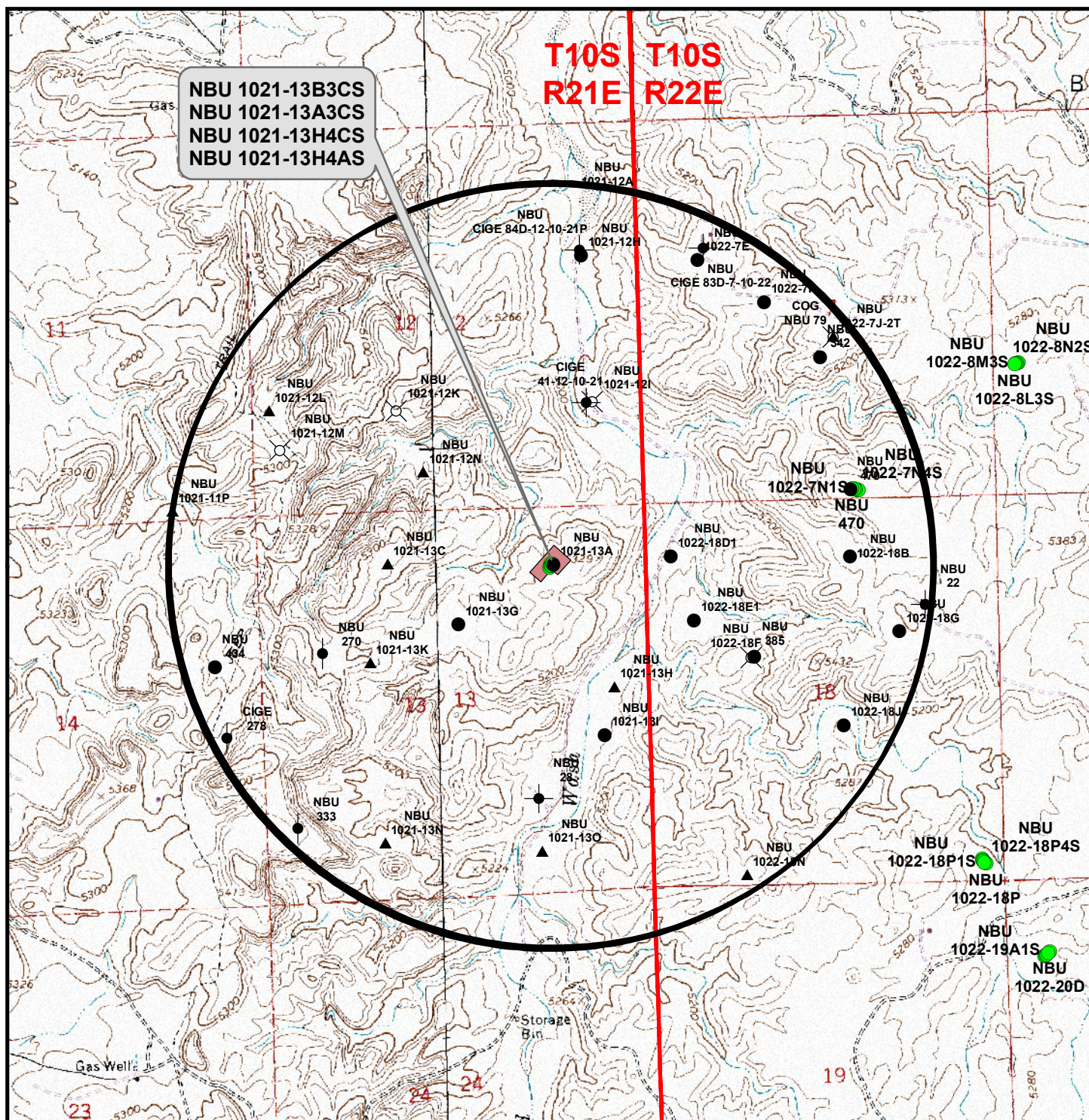
609
CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182



Scale: 1" = 2000ft
Drawn: JELO
Revised:

NAD83 USP Central
Date: 6 Feb 2009

Sheet No:
10 10 of 13



Legend

- Well - Proposed
- Well - 1 Mile Radius
- Producing
- ▲ Approved permit (APD); not yet spudded
- Spudded (Drilling commenced: Not yet comple
- Well Pad
- ✕ Location Abandoned
- Shut-In
- Temporarily-Abandoned
- Plugged and Abandoned

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

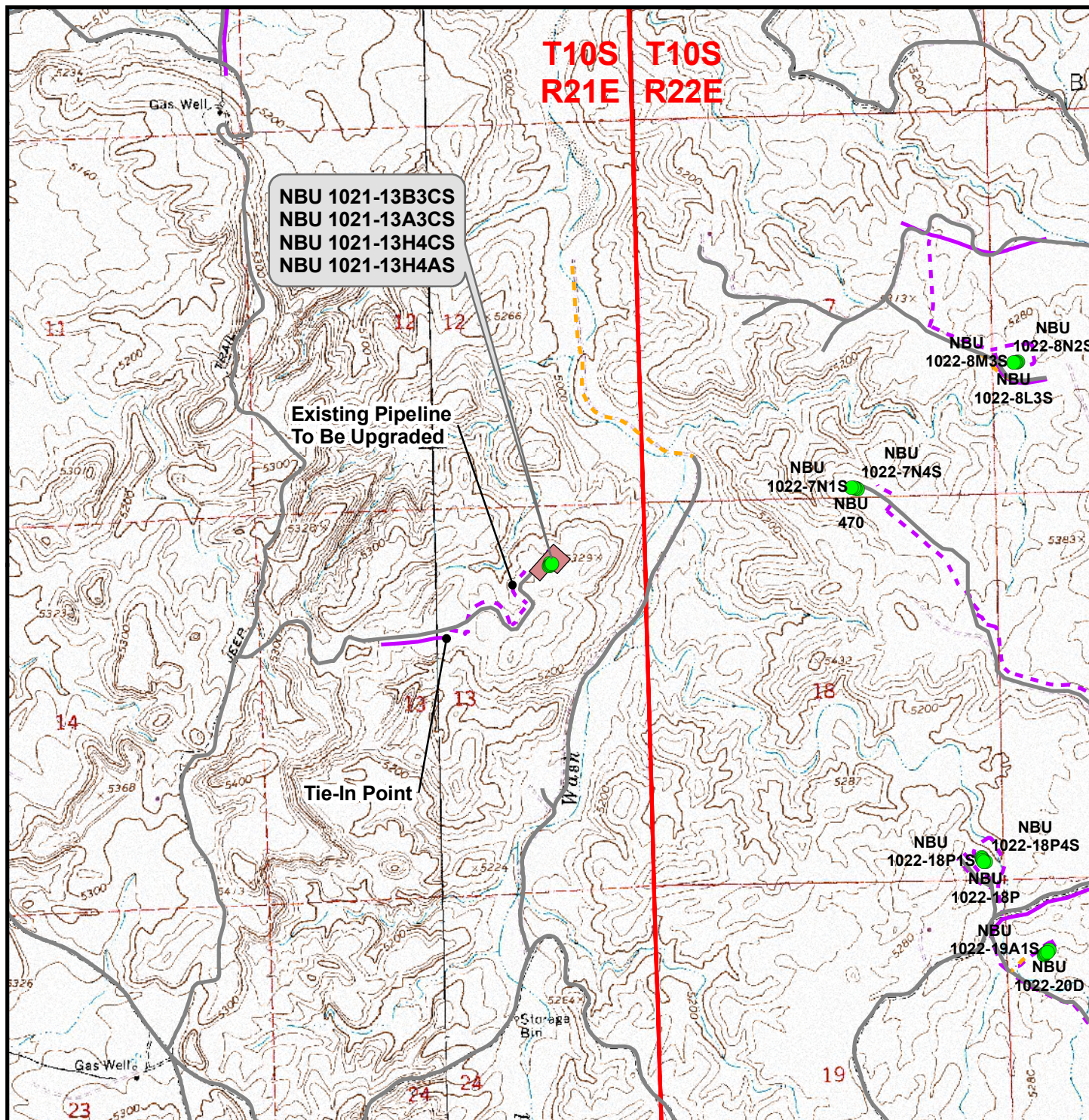
**NBU 1021-13B3CS, NBU 1021-13A3CS,
NBU 1021-13H4CS & NBU 1021-13H4AS**
Topo C
Located In Section 13, T10S, R21E
S.L.B.&M., Uintah County, Utah

609
CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182



Scale: 1" = 2000ft | NAD83 USP Central
Drawn: JELO | Date: 6 Feb 2009
Revised: | Date:

Sheet No:
11 11 of 13



Legend

- Well - Proposed
- Well Pad
- Road - Proposed
- Pipeline - Proposed
- Road - Existing
- Pipeline - Existing

Proposed Pipeline Length From Tie-In Point To Edge Of Pad: $\pm 2,465\text{ft}$
Proposed Pipeline Length Around Pad: $\pm 660\text{ft}$

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

**NBU 1021-13B3CS, NBU 1021-13A3CS,
NBU 1021-13H4CS & NBU 1021-13H4AS**
Topo D
Located In Section 13, T10S, R21E
S.L.B.&M., Uintah County, Utah



Scale: 1" = 2000ft
NAD83 USP Central
Drawn: JELO
Revised:
Date: 6 Feb 2009
Date:

Sheet No:
12 12 of 13

Kerr-McGee Oil & Gas Onshore, LP
NBU 1021-13B3CS, NBU 1021-13A3CS, NBU 1021-13H4CS
& NBU 1021-13H4AS
Section 13, T10S, R21E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 13.9 MILES TO THE JUNCTION OF STATE HIGHWAY 88. EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION ALONG STATE HIGHWAY 88 APPROXIMATELY 16.8 MILES TO OURAY, UTAH. FROM OURAY, PROCEED IN A SOUTHERLY DIRECTION ALONG THE SEEP RIDGE ROAD (COUNTY B ROAD 2810) APPROXIMATELY 11.2 MILES TO THE INTERSECTION OF THE GLEN BENCH ROAD (COUNTY B ROAD 3260). EXIT LEFT AND PROCEED IN AN EASTERLY, THEN SOUTHEASTERLY DIRECTION ALONG THE GLEN BENCH ROAD APPROXIMATELY 5.2 MILES TO THE INTERSECTION OF THE BITTER CREEK ROAD (COUNTY B ROAD 4120). EXIT RIGHT AND PROCEED IN A SOUTHEASTERLY DIRECTION ALONG THE BITTER CREEK ROAD APPROXIMATELY 1.3 MILES TO THE INTERSECTION OF THE WEST SAND WASH ROAD (COUNTY B ROAD 4110). EXIT LEFT AND PROCEED IN A NORTHERLY DIRECTION ALONG THE WEST SAND WASH ROAD APPROXIMATELY 1.2 MILES TO A SERVICE ROAD RUNNING EASTERLY. EXIT RIGHT AND PROCEED IN AN EAST BY NORTHEAST DIRECTION ALONG THE SERVICE ROAD APPROXIMATELY 1.1 MILES TO THE EXISTING WELL PAD.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 50.7 MILES IN A SOUTHERLY DIRECTION.

NBU 1021-13H4AS

Pad: NBU 1021-13A

Surface: 652' FNL, 1,287' FEL (NE/4NE/4)

BHL: 2,060' FNL 140' FEL (SE/4NE/4)

Sec. 13 T10S R21E

Uintah, Utah

Mineral Lease: ML 23608

ONSHORE ORDER NO. 1

MULTI-POINT SURFACE USE & OPERATIONS PLAN

Directional Drilling:

In accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, this well will be directionally drilled in order to access portions of our lease which are otherwise inaccessible due to topography.

1. Existing Roads:

Refer to Topo Map A for directions to the location.

Refer to Topo Maps A and B for location of access roads within a 2-mile radius.

Refer to Topo Maps A and B for location of access roads within a 2-mile radius.

All existing roads will be maintained and kept in good repair during all drilling and completion operations associated with this well.

2. Planned Access Roads:

Approximately ± 0.0 mi. ($\pm 0'$) of new access road is proposed. Please refer to the attached Topo Map B.

The upgraded and new portions of the access road will be crowned and ditched with a running surface of 18 feet and a maximum disturbed width of 30 feet. Appropriate water control will be installed to control erosion.

Existence of pipelines; maximum grade; turnouts; major cut and fills, culverts, or bridges; gates, cattle guards, fence cuts, or modifications to existing facilities were determined at the on-site.

The access road was centerline flagged during time of staking.

Surfacing material may be necessary, depending upon weather conditions.

Surface disturbance and vehicular traffic will be limited to the approved location and approved access route. Any additional area needed will be approved in advance.

3. Location of Existing Wells Within a 1-Mile Radius:

Please refer to Topo Map C.

4. Location of Existing & Proposed Facilities:

The following guidelines will apply if the well is productive.

All production facilities will be located on the disturbed portion of the well pad and at a minimum of 25 feet from the toe of the back slope or the top of the fill slope.

A dike will be constructed completely around those production facilities which contain fluids (i.e., production tanks, produced water tanks, and/or heater/treater). These dikes will be constructed of compacted subsoil, be impervious, hold 100% of the capacity of the largest tank, and be independent of the back cut.

All permanent (on-site six months or longer) above the ground structures constructed or installed, including pumping units, will be painted a flat, non-reflective, earthtone color to match one of the standard environmental colors, as determined by the five state Rocky Mountain Inter-Agency Committee.

All facilities will be painted within six months of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) will be excluded. The required color is Shadow Gray, a non-reflective earthtone.

Any necessary pits will be properly fenced to protect livestock and prevent wildlife entry.

5. Location and Type of Water Supply:

Water for drilling purposes will be obtained from Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32 T4S R3E, Water User Claim #43-8496, Application #53617.

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

6. Source of Construction Materials:

Surface and subsoil materials in the immediate area will be utilized.

Any gravel will be obtained from a commercial source.

7. Methods of Handling Waste Materials:

Drill cuttings will be contained and buried in the reserve pit.

Drilling fluids, including salts and chemicals, will be contained in the reserve pit. Upon termination of drilling and completion operations, the liquid contents of the reserve pit will be removed and disposed of at an approved waste disposal facility within 120 days after drilling is terminated.

The reserve pit will be constructed on the location and will not be located within natural drainage, where a flood hazard exists or surface runoff will destroy or damage the pit walls. The reserve pit will be constructed so that it will not leak, break, or allow discharge of liquids.

A plastic reinforced liner and felt will be used; it will be a minimum of 20 mil thick, with sufficient bedding used to cover any rocks. The liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place. No trash or scrap that could puncture the liner will be disposed of in the pit. Any spills of oil, gas, salt water, or other noxious fluids will be immediately cleaned up and removed to an approved disposal site.

A chemical porta-toilet will be furnished with the drilling rig.

Garbage, trash, and other waste materials will be collected in a portable, self-contained, fully enclosed trash cage during operations. No trash will be burned on location.

All debris and other waste material not contained in the trash cage will be cleaned up and removed from the location immediately after removal of the drilling rig.

Any open pits will be fenced during the operations. The fencing will be maintained until such time as the pits are backfilled.

No chemicals subject to reporting under SARA Title III (hazardous materials) in an amount greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling of this well. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will be used, produced, stored, transported, or disposed of in association with the drilling of this well.

Any produced water from the proposed well will be contained in a water tank and will then be hauled By truck to one of the pre-approved disposal sites: RNI in Sec. 5 T9S R22E, NBU #159 in Sec. 35 T9S R21E, Ace Oilfield in Sec. 2 T6S R20E, MC&MC in Sec. 12 T6S R19E, Pipeline Facility in Sec. 36 T9S R20E, Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E, Bonanza Evaporation Pond in Sec. 2 T10S R23E.

8. Ancillary Facilities:

None are anticipated.

9. Well Site Layout: (See Location Layout Diagram)

The attached Location Layout Diagram describes drill pad cross-sections, cuts and fills, and locations of the mud tanks, reserve pit, flare pit, pipe racks, trailer parking, spoil dirt stockpile(s), and surface material stockpile(s).

Please see the attached diagram to describe rig orientation, parking areas, and access roads.

The reserve pit will be lined, and when the reserve pit is closed, the pit liner will be buried below plow depth.

All pits will be fenced according to the following minimum standards:

39 inch net wire will be used with at least one strand of barbed wire on top of the net wire. Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.

The net wire shall be no more than two inches above the ground. The barbed wire shall be three inches over the net wire. Total height of the fence shall be at least 42 inches.

Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.

Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

All wire shall be stretched, by using a stretching device, before it is attached to corner posts.

The reserve pit fencing will be on three sides during drilling operations, and on the fourth side when the rig moves off location. Pits will be fenced and maintained until cleanup.

Location size may change prior to the drilling of the well due to current rig availability. If the proposed location is not large enough to accommodate the drilling rig the location will be re-surveyed and a Form 9 shall be submitted.

10. Plans for Reclamation of the Surface:

Producing Location:

Immediately upon well completion, the location and surrounding area will be cleared of all unused tubing, materials, trash, and debris not required for production.

Immediately upon well completion, any hydrocarbons in the pit shall be removed in accordance with 43 CFR 3162.7-1.

A plastic, nylon reinforced liner will be used, it shall be torn and perforated before backfilling of the reserve pit.

Before any dirt work associated with location restoration takes place, the reserve pit shall be as dry as possible. All debris in it will be removed. Other waste and spoil materials will be disposed of immediately upon completion of operations.

The reserve pit and that portion of the location not needed for production facilities/operations will be recontoured to the approximate natural contours. The reserve pit will be reclaimed within 90 days from the date of well completion, weather permitting.

To prevent surface water(s) from standing (ponding) on the reclaimed reserve pit area, final reclamation of the reserve pit will consist of "mounding" the surface three feet above surrounding ground surface to allow the reclaimed pit area to drain effectively.

Upon completion of backfilling, leveling, and recontouring, the stockpiled topsoil will be spread evenly over the reclaimed area(s).

Dry Hole/Abandoned Location:

Abandoned well sites, roads, and other disturbed areas will be restored as near as practical to their original condition. Where applicable, these conditions include the re-establishment of irrigation systems, the re-establishment of appropriate soil conditions, and re-establishment of vegetation as specified.

All disturbed surfaces will be recontoured to the approximate natural contours, with reclamation of the well pad and access road to be performed as soon as practical after final abandonment. Reseeding operations will be performed after completion of other reclamation operations.

11. Surface/Mineral Ownership:

SITLA
675 East 500 South, Suite 500
Salt Lake City, UT 84102

12. Other Information:

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, the approved Plan of Operations, and any applicable Notice of Lessees. The Operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished to the field representative to ensure compliance.

The Operator will control noxious weeds along Rights-Of-Way for roads, pipelines, well sites, or other applicable facilities.

A Class III archaeological survey report is attached.

13. Lessee's or Operators' Representative & Certification:

Kathy Schneebeck Dulnoan
Staff Regulatory Analyst
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6226

Tommy Thompson
General Manager, Drilling
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by State Surety Bond 22013542.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.


Kathy Schneebeck Dulnoan

April 2, 2009
Date

CLASS I REVIEW OF KERR-MCGEE OIL & GAS
ONSHORE LP'S FIVE PROPOSED WELL LOCATIONS
IN TOWNSHIP 10S, RANGE 21E, SECTION 13
UINTAH COUNTY, UTAH

CLASS I REVIEW OF KERR-MCGEE OIL & GAS
ONSHORE LP'S FIVE PROPOSED WELL LOCATIONS
IN TOWNSHIP 10S, RANGE 21E, SECTION 13
UINTAH COUNTY, UTAH

By:

Jacki A. Montgomery

Prepared For:

State of Utah
School & Institutional Trust Lands Administration

Prepared Under Contract With:

Kerr-McGee Oil & Gas Onshore LP
1368 South 1200 East
Vernal, Utah 84078

Prepared By:

Montgomery Archaeological Consultants, Inc.
P.O. Box 219
Moab, Utah 84532

MOAC Report No. 09-001

February 26, 2009

United States Department of Interior (FLPMA)
Permit No. 08-UT-60122

Public Lands Policy Coordination Office
Archaeological Survey Permit No. 117

INTRODUCTION

A Class I literature review was completed by Montgomery Archaeological Consultants Inc. (MOAC) in February 2009 of Kerr-McGee Oil & Gas Onshore LP's five proposed well locations with associated pipeline corridor in Township 10S, Range 21E, Section 13. The project area is situated south of the White River, south of the town of Vernal, Uintah County, Utah. The well locations are designated NBU #13A (NBU #1021-13A) Directional Pad, NBU #1021-13B3CS, NBU #1021-13A3CS, NBU #1021-13H4AS, and NBU #1021-13H4CS. This document was implemented at the request of Ms. Raleen White, Kerr-McGee Oil & Gas Onshore LP, Denver, Colorado. Land status is state lands administered by the State of Utah School & Institutional Trust Lands Administration (SITLA).

The purpose of this Class I review is to identify, classify, and evaluate the previously conducted cultural resource inventories and archaeological sites in the project area in order to comply with Section 106 of 36 CFR 800, the National Historic Preservation Act of 1966 (as amended). Also, the inventory was implemented to attain compliance with a number of federal and state mandates, including the National Environmental Policy Act of 1969, the Archaeological and Historic Conservation Act of 1972, the Archaeological Resources Protection Act of 1979, the American Indian Religious Freedom Act of 1978, and the Utah State Antiquities Act of 1973 (amended 1990).

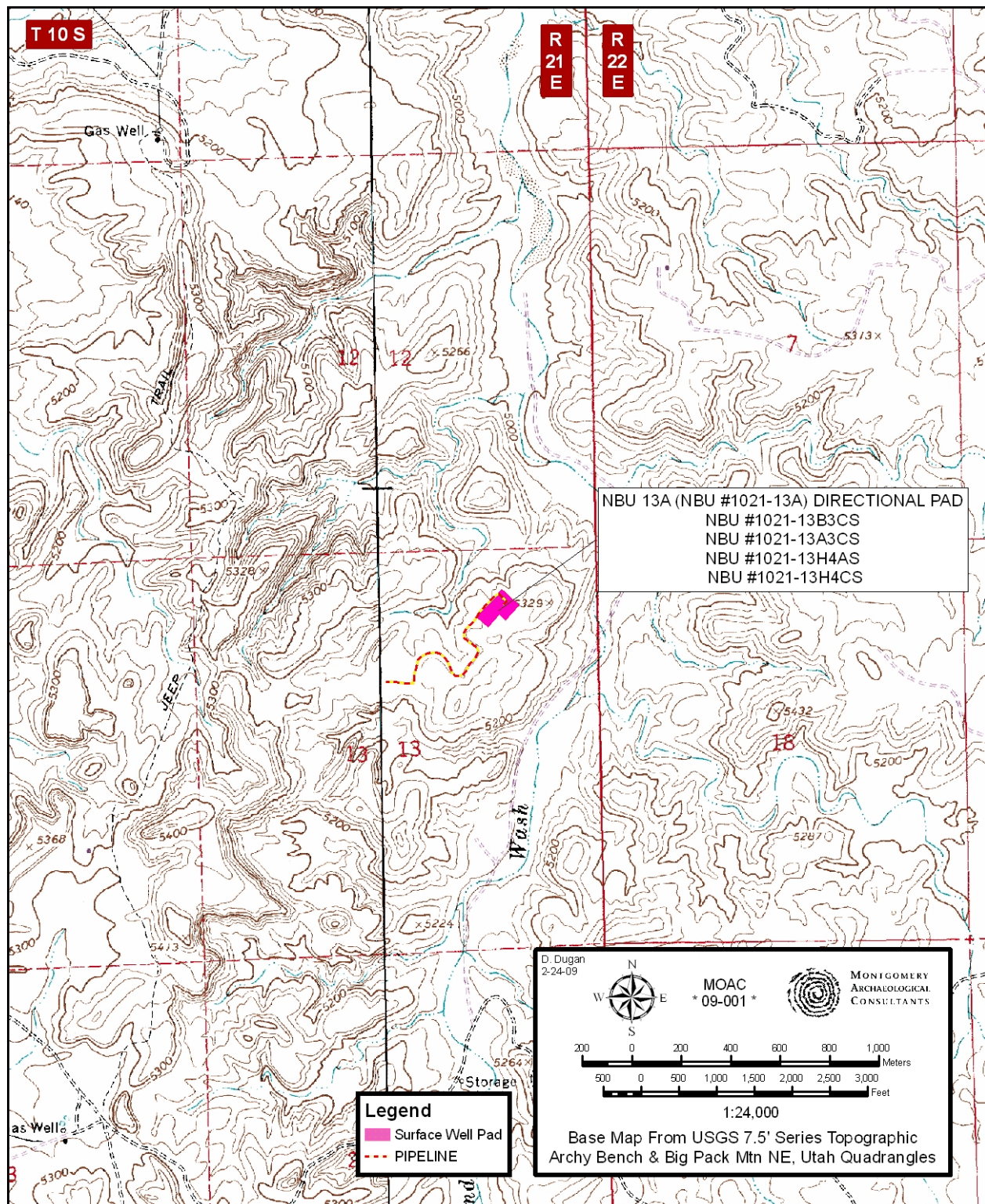
The project area was previously inventoried in 2005 by MOAC for Westport Oil and Gas Company's six well locations near Sand Wash (Jendresen and Montgomery 2005). A file search was completed by consulting MOAC's Class I existing data review of 459 square miles (293,805 acres) covering the Greater NBU study area between Bonanza and Ouray in Uintah County, northeastern Utah (Patterson et al. 2008). Record searches were performed for this Class I project by Marty Thomas at the Utah State Historic Preservation Office (SHPO) on various dates between June 14, 2006 and January 27, 2007. The results of this Class I data review and Class III inventory indicated that no previous archaeological sites occurs near the current project area.

DESCRIPTION OF THE PROJECT AREA

The project area is situated west of Sand Wash and south of the White River in the Uinta Basin. The legal description is Township 10 South, Range 21 East, Section 13 (Table 1; Figure 1).

Table 1. Kerr-McGee Onshore's Five Proposed Well Locations.

Well Designation	Legal Description	Access/Pipeline Corridor	Cultural Resources
NBU #13A (NBU #1021-13A) Directional Pad NBU #1021-13B3CS NBU #1021-13A3CS NBU #1021-13H4AS NBU #1021-13H4CS	NE/NE Sec. 13, T10S, R21E	Pipeline: 2400 ft	None



The study area lies within the Uinta Basin physiographic unit, a distinctly bowl-shaped geologic structure (Stokes 1986:231). The Uinta Basin ecosystem is within the Green River drainage, considered to be the northernmost extension of the Colorado Plateau. The geology is comprised of Tertiary age deposits, which include Paleocene age deposits and Eocene age fluvial and lacustrine sedimentary rocks. The Uinta Formation, which is predominate in the project area, occurs as eroded outcrops (formed by fluvial deposited, stream laid interbedded sandstone and mudstone), and is known for its prolific paleontological localities. Specifically, the inventory area is situated adjacent to the White River and Bitter Creek. Elevation averages 5240 ft asl. The project occurs within the Upper Sonoran Desert Shrub Association which includes; sagebrush, shadscale, greasewood, mat saltbush, snakeweed, rabbitbrush, and prickly pear cactus. Modern disturbances include livestock grazing, roads, and oil/gas development.

CLASS I RESULTS AND RECOMMENDATIONS

The Class I literature review of Kerr-McGee Oil & Gas Onshore LP's five proposed well locations with pipeline corridor resulted in no previously documented cultural resources. Therefore, archaeological clearance is recommended for this undertaking.

REFERENCES CITED

- Jendresen, A., and K.R. Montgomery
2005 Cultural Resource Inventory of Westport Oil and Gas Company's Six Proposed Well Locations near Sand Wash: NBU Wells 1021-13A, C, G, I, K, and O in T10S, R21E, Sec. 13, Uintah County, Utah. Montgomery Archaeological Consultants, Moab, Utah. Report U-05-MQ-1143.
- Patterson, J. J., J. Fritz, K. Lower-Eskelson, R. Stash and A. Thomas
2008 NBU Class I Existing Data Review for Kerr-McGee Oil & Gas Onshore LP, Uintah County, Utah. Montgomery Archaeological Consultants, Moab, Utah.
- Stokes, W. L.
1986 *Geology of Utah*. Utah Museum of Natural History and Utah Geological and Mineral Survey, Salt Lake City.

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:
3160
(UT-922)

April 9, 2009

Memorandum

To: Assistant District Manager Minerals, Vernal District
From: Michael Coulthard, Petroleum Engineer
Subject: 2009 Plan of Development Natural Buttes Unit
Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2009 within the Natural Buttes Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
43-047-50333	NBU 1021-13A3CS Sec 13	T10S R21E 0682 FNL 1314 FEL BHL Sec 13 T10S R21E 1260 FNL 1330 FEL
43-047-50339	NBU 1021-13H4CS Sec 13	T10S R21E 0667 FNL 1301 FEL BHL Sec 13 T10S R21E 2440 FNL 0480 FEL
43-047-50340	NBU 1021-13H4AS Sec 13	T10S R21E 0652 FNL 1287 FEL BHL Sec 13 T10S R21E 2060 FNL 0140 FEL
43-047-50341	NBU 1021-13B3CS Sec 13	T10S R21E 0696 FNL 1328 FEL BHL Sec 13 T10S R21E 1320 FNL 2360 FEL

This office has no objection to permitting the wells at this time.

/s/ Michael L. Coulthard

bcc: File - Natural Buttes Unit
Division of Oil Gas and Mining
Central Files
Agr. Sec. Chron
Fluid Chron

MCoulthard:mc:4-9-09

From: Jim Davis
To: Mason, Diana
Date: 4/20/2009 4:48 PM
Subject: The following APDs on a multi-well pad are approved by SITLA including arch and paleo clearance. Paleo clearance granted with the condition explained below.

The following APDs on a multi-well pad are approved by SITLA including arch and paleo clearance. Paleo clearance granted with the condition explained below.

NBU 1021-13B3CS (4304750341)
NBU 1021-13A3CS (4304750333)
NBU 1021-13H4CS (4304750340) and
NBU 1021-13H4AS (4304750339).
-Jim

This e-mail went to Kerr McGee/ Anadarko this afternoon.
Raleen,

As recommended in the report from Intermountain Paleo-Consulting (IPC 09-58), SITLA is requiring that a permitted paleontologist be present during the beginning of construction of the multi-well pad, roads and pipelines for the NBU 1021-13B3CS, A3CS, H4CS and H4AS and then spot paleo monitoring thereafter as necessary. I'll be sending SITLA's approval of this well to DOGM later today- this requirement will be noted there as a condition of our approval. Call me if you have any questions.

-Jim

Jim Davis
Utah Trust Lands Administration
jimdavis1@utah.gov
Phone: (801) 538-5156



Kerr-McGee Oil & Gas Onshore LP

1099 18th Street, Suite 1800
Denver, CO 80202-1918
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Denver, CO 80217-3779
720-929-6000

April 22, 2009

Mrs. Diana Mason
Division of Oil, Gas and Mining
P.O. Box 145801
Salt Lake City, UT 84114-6100

Re: Directional Drilling R649-3-11
NBU 1021-13H4AS
T10S-R21E
Section 13: SENE
Surface: 652' FNL, 1287' FEL
Bottom Hole: 2060' FNL, 140' FEL
Uintah County, Utah

Dear Mrs. Mason:

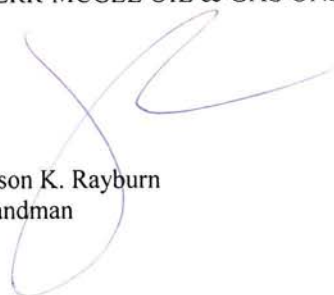
Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to the Exception to Location and Siting of Wells.

- Kerr-McGee's NBU 1021-13H4AS is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

Therefore, based on the above stated information Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to R649-3-11.

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP



Jason K. Rayburn
Landman

Well Name	KERR-MCGEE OIL & GAS ONSHORE, L.P. NBU 1021-13H4AS 430475034			
String	Surf	Prod		
Casing Size(in)	9.625	4.500		
Setting Depth (TVD)	2200	9100		
Previous Shoe Setting Depth (TVD)	20	2200		
Max Mud Weight (ppg)	8.3	11.6		
BOPE Proposed (psi)	500	5000		
Casing Internal Yield (psi)	3520	7780		
Operators Max Anticipated Pressure (psi)	5710	12.1		

Calculations	Surf String	9.625	"
Max BPH (psi)	.052*Setting Depth*MW=	950	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	686	NO OK
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	466	YES
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	470	NO Reasonable depth in area
Required Casing/BOPE Test Pressure=		2200	psi
*Max Pressure Allowed @ Previous Casing Shoe=		20	psi *Assumes 1psi/ft frac gradient

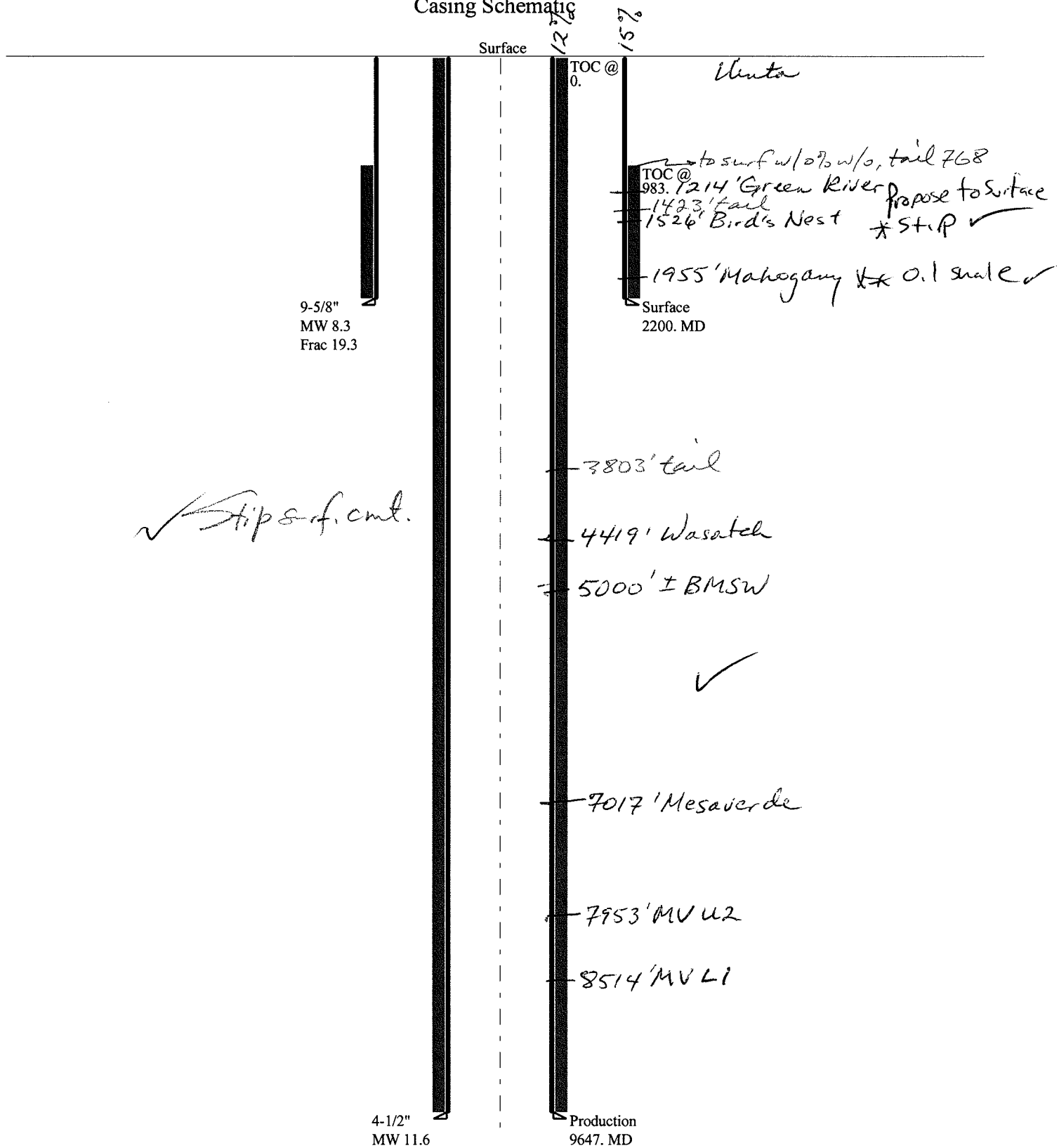
Calculations	Prod String	4.500	"
Max BPH (psi)	.052*Setting Depth*MW=	5489	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	4397	YES
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	3487	YES OK
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	3971	NO Reasonable
Required Casing/BOPE Test Pressure=		5000	psi
*Max Pressure Allowed @ Previous Casing Shoe=		2200	psi *Assumes 1psi/ft frac gradient

Calculations	String		"
Max BPH (psi)	.052*Setting Depth*MW=		
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO
Required Casing/BOPE Test Pressure=			psi
*Max Pressure Allowed @ Previous Casing Shoe=			psi *Assumes 1psi/ft frac gradient

Calculations	String		"
Max BPH (psi)	.052*Setting Depth*MW=		
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO
Required Casing/BOPE Test Pressure=			psi
*Max Pressure Allowed @ Previous Casing Shoe=			psi *Assumes 1psi/ft frac gradient

43047503400000 NBU 1021-13H4AS

Casing Schematic



Well name:	43047503400000 NBU 1021-13H4AS	
Operator:	KERR-MCGEE OIL & GAS ONSHORE, L.P.	
String type:	Surface	Project ID: 43-047-50340
Location:	UINTAH COUNTY	

Design parameters:

Collapse

Mud weight: 8.330 ppg
Design is based on evacuated pipe.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 105 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft

Cement top: 983 ft

Burst

Max anticipated surface pressure: 1,936 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 2,200 psi

No backup mud specified.

Tension:

8 Round STC: 1.80 (J)
8 Round LTC: 1.70 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.50 (B)

Tension is based on air weight.
Neutral point: 1,929 ft

Directional Info - Build & Drop

Kick-off point 2100 ft
Departure at shoe: 3 ft
Maximum dogleg: 3 °/100ft
Inclination at shoe: 3 °

Re subsequent strings:

Next setting depth: 9,100 ft
Next mud weight: 11.600 ppg
Next setting BHP: 5,483 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 2,200 ft
Injection pressure: 2,200 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	2200	9.625	36.00	J-55	LT&C	2200	2200	8.796	17989

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	952	1948	2.046	2200	3520	1.60	79.2	453	5.72 J

Prepared Steven Schiess
by: Div of Oil, Gas & Mining

Phone: 801 538-7462
FAX: 801-359-3940

Date: June 11, 2009
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2200 ft, a mud weight of 8.33 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Well name:	43047503400000 NBU 1021-13H4AS	
Operator:	KERR-MCGEE OIL & GAS ONSHORE, L.P.	
String type:	Production	Project ID: 43-047-50340
Location:	UINTAH COUNTY	

Design parameters:

Collapse

Mud weight: 11.600 ppg
Design is based on evacuated pipe.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 201 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft

Cement top: Surface

Burst

Max anticipated surface pressure: 3,481 psi
Internal gradient: 0.220 psi/ft
Calculated BHP 5,483 psi

No backup mud specified.

Tension:

8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.60 (B)

Tension is based on air weight.

Neutral point: 8,069 ft

Directional Info - Build & Drop

Kick-off point 2100 ft
Departure at shoe: 1817 ft
Maximum dogleg: 3 °/100ft
Inclination at shoe: 0 °

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	9647	4.5	11.60	I-80	LT&C	9100	9647	3.875	127340
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	5483	6360	1.160	5483	7780	1.42	105.6	212	2.01 J

Prepared by: Steven Schiess
Div of Oil, Gas & Mining

Phone: 801 538-7462
FAX: 801-359-3940

Date: June 11, 2009
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 9100 ft, a mud weight of 11.6 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Engineering responsibility for use of this design will be that of the purchaser.

ON-SITE PREDRILL EVALUATION

Utah Division of Oil, Gas and Mining

Operator	KERR-MCGEE OIL & GAS ONSHORE, L.P.				
Well Name	NBU 1021-13H4AS				
API Number	43047503400000	APD No	1391	Field/Unit	NATURAL BUTTES
Location: 1/4,1/4	NENE	Sec	13	Tw	10.0S
		Rng	21.0E	652	FNL 1287 FEL
GPS Coord (UTM)	628624 4423507	Surface Owner			

Participants

Floyd Bartlett (DOGM), Ed Bonner (SITLA), Ramie Hoopes, Clay Einerson, Griz Oleen, Tony Kzneck, Charles Chase (Kerr McGee), Ben Williams (UDWR) and Kolby Kay (Timberline Engineering and Land Surveying).

Regional/Local Setting & Topography

This location is in a tributary of the Sand Wash drainage of the Natural Buttes Unit approximately 50.7 road miles south of Vernal, Ut.. The Seep Ridge Road, Uintah County roads and existing oil field development roads access the site. Sand Wash, the major drainage in the area, drains northerly to the White River a distance of approximately 3-1/2 miles. The area is characterized by narrow ridges and steep sided hills, which are frequently divided by narrow to wide valley bottoms. Sand Wash is an ephemeral drainage. No springs, seeps or streams exist in the area. An occasional pond constructed to supply water for cattle and antelope exists. Washes are sometimes rimed with exposed sand stone bedrock cliffs.

Four additional gas wells are proposed on an enlarged pad that currently contains the NBU 13A producing gas well. Continued operation of this well is planned. The additional wells are the NBU 1021-13B3CS, 13A3CS, 13H4CS and 13H4AS. Steep rocky topography limits the size that the pad can be enlarged. The location is on a side ridge trending in a southeast to northwest direction. The pad will be extended on both ends with the reserve pit cut an additional distance into the adjacent side hill. A v shaped draw beyond Corners 2 and 3 should not be filled. Stakes at this location are numbered wrong and a new Location Layout drawing will be submitted. No drainages intersect the location and no diversions are required. Sand Wash is about 1/8 mile to the east. The selected location appears to be suitable for enlargement of the pad and drilling and operating the proposed additional wells. It is the only suitable site in the area.

Both the surface and minerals are owned by SITLA.

Surface Use Plan

Current Surface Use

Grazing
Recreational
Wildlife Habitat
Existing Well Pad

New Road Miles	Well Pad	Src Const Material	Surface Formation
0	Width 310 Length 470	Onsite	UNTA

Ancillary Facilities N

Waste Management Plan Adequate?

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

Vegetation in the non-disturbed area includes halogeton, black sagebrush, shadscale and annuals.

Sheep, antelope and small mammals and birds.

Soil Type and Characteristics

Soils are a ledgy rocky sandy loam.

Erosion Issues N

Sedimentation Issues N

Site Stability Issues N

Drainage Diversion Required? N

Berm Required? N

Erosion Sedimentation Control Required? N

Paleo Survey Run? Y **Paleo Potential Observed?** N **Cultural Survey Run?** Y **Cultural Resources?** N

Reserve Pit

Site-Specific Factors

Site Ranking

Distance to Groundwater (feet)	>200	0
Distance to Surface Water (feet)	>1000	0
Dist. Nearest Municipal Well (ft)	>5280	0
Distance to Other Wells (feet)		20
Native Soil Type	Mod permeability	10
Fluid Type	Fresh Water	5
Drill Cuttings	Normal Rock	0
Annual Precipitation (inches)		0
Affected Populations		
Presence Nearby Utility Conduits	Not Present	0
Final Score	35	1 Sensitivity Level

Characteristics / Requirements

The reserve pit is planned in an area of cut in the southwest corner of the location. Dimensions are 110' x 250' x 12' deep with 2' of freeboard. Rounding between Corners C and D is planned. A liner with a minimum thickness of 30 mils. and a felt sub-liner are required.

Closed Loop Mud Required? N **Liner Required?** Y **Liner Thickness** 30 **Pit Underlayment Required?** Y

Other Observations / Comments

Floyd Bartlett
Evaluator

4/28/2009
Date / Time

Application for Permit to Drill

Statement of Basis

6/17/2009

Utah Division of Oil, Gas and Mining

Page 1

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
1391	43047503400000	LOCKED	GW	S	No
Operator	KERR-MCGEE OIL & GAS ONSHORE, L.P.		Surface Owner-APD		
Well Name	NBU 1021-13H4AS		Unit	NATURAL BUTTES	
Field	NATURAL BUTTES		Type of Work	DRILL	
Location	NENE 13 10S 21E S 652 FNL 1287 FEL GPS Coord (UTM) 628633E 4423509N				

Geologic Statement of Basis

Kerr McGee proposes to set 1,900' of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 5,000'. A search of Division of Water Rights records shows one water well within a 10,000 foot radius of the center of Section 13. The well is located .75 miles southwest of the proposed location. The well is owned by Target Trucking and is used for oil well drilling fluid. No depth is listed. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. Production casing cement should be brought up above the base of the moderately saline ground water to isolate it from fresher waters uphole.

Brad Hill
APD Evaluator

4/30/2009
Date / Time

Surface Statement of Basis

This location is in a tributary of the Sand Wash drainage of the Natural Buttes Unit approximately 50.7 road miles south of Vernal, Ut.. The Seep Ridge Road, Uintah County roads and existing oil field development roads access the site. Sand Wash, the major drainage in the area, drains northerly to the White River a distance of approximately 3-1/2 miles. The area is characterized by narrow ridges and steep sided hills, which are frequently divided by narrow to wide valley bottoms. Sand Wash is an ephemeral drainage. No springs, seeps or streams exist in the area. An occasional pond constructed to supply water for cattle and antelope exists. Washes are sometimes rimed with exposed sand stone bedrock cliffs.

Four additional gas wells are proposed on an enlarged pad that currently contains the NBU 13A producing gas well. Continued operation of this well is planned. The additional wells are the NBU 1021-13B3CS, 13A3CS, 13H4CS and 13H4AS. Steep rocky topography limits the size that the pad can be enlarged. The location is on a side ridge trending in a southeast to northwest direction. The pad will be extended on both ends with the reserve pit cut an additional distance into the adjacent side hill. A v shaped draw beyond Corners 2 and 3 should not be filled. Stakes at this location are numbered wrong and a new Location Layout drawing will be submitted. No drainages intersect the location and no diversions are required. Sand Wash is about 1/8 mile to the east. The selected location appears to be suitable for enlargement of the pad and drilling and operating the proposed additional wells. It is the only suitable site in the area.

Both the surface and minerals are owned by SITLA. Ed Bonner of SITLA reviewed the site and had no concerns regarding the proposal except as covered above.

Ben Williams of the Utah Division of Wildlife Resources also attended the pre-site. Mr. Williams stated no wildlife values would be significantly affected by drilling and operating the wells at this location. He provided Ed Bonner of SITLA and Ramie Hoopes of Kerr McGee a written wildlife evaluation and a copy of a recommended seed mix to be used for re-vegetating the disturbed area.

Application for Permit to Drill Statement of Basis

6/17/2009

Utah Division of Oil, Gas and Mining

Page 2

Floyd Bartlett
Onsite Evaluator

4/28/2009
Date / Time

Conditions of Approval / Application for Permit to Drill

Category	Condition
Pits	A synthetic liner with a minimum thickness of 30 mils with a felt subliner shall be properly installed and maintained in the reserve pit.
Surface	The reserve pit shall be fenced upon completion of drilling operations.

WORKSHEET

APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 4/5/2009

API NO. ASSIGNED: 43047503400000

WELL NAME: NBU 1021-13H4AS

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995)

PHONE NUMBER: 720 929-6007

CONTACT: Kathy Schneebeck-Dulnoan

PROPOSED LOCATION: NENE 13 100S 210E

Permit Tech Review: ☒

SURFACE: 0652 FNL 1287 FEL

Engineering Review: ☒

BOTTOM: 2060 FNL 0140 FEL

Geology Review: ☒

COUNTY: UINTAH

LATITUDE: 39.95383

LONGITUDE: -109.49413

UTM SURF EASTINGS: 628633.00

NORTHINGS: 4423509.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 3 - State

LEASE NUMBER: ML 23608

PROPOSED PRODUCING FORMATION(S): WASATCH-MESA VERDE

SURFACE OWNER: 3 - State

COALBED METHANE: NO

RECEIVED AND/OR REVIEWED:

- ☒ **PLAT**
- ☒ **Bond:** STATE/FEE - 22013542
- ☐ **Potash**
- ☒ **Oil Shale 190-5**
- ☐ **Oil Shale 190-3**
- ☐ **Oil Shale 190-13**
- ☒ **Water Permit:** Permit #43-8496
- ☐ **RDCC Review:**
- ☐ **Fee Surface Agreement**
- ☒ **Intent to Commingle**

Commingle Approved

LOCATION AND SITING:

- ☐ **R649-2-3.**
- Unit:** NATURAL BUTTES
- ☐ **R649-3-2. General**
- ☐ **R649-3-3. Exception**
- ☒ **Drilling Unit**
- Board Cause No:** Cause 173-14
- Effective Date:** 12/2/1999
- Siting:** 460' fr u bdry & uncomm. tract
- ☒ **R649-3-11. Directional Drill**

Comments: Presite Completed

Stipulations:
3 - Commingle - ddoucet
5 - Statement of Basis - bhll
15 - Directional - dmason
17 - Oil Shale 190-5(b) - dmason
25 - Surface Casing - hmacdonald



JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: NBU 1021-13H4AS

API Well Number: 43047503400000

Lease Number: ML 23608

Surface Owner: STATE

Approval Date: 6/17/2009

Issued to:

KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

Authority:

Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14. The expected producing formation or pool is the WASATCH-MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Commingling:

In accordance with Board Cause No. 173-14 commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:

In accordance with Utah Admin. R. 649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Surface casing shall be cemented to the surface.

Notification Requirements:

The operator is required to notify the Division of Oil, Gas and Mining of the following action during drilling of this well:

- 24 hours prior to cementing or testing casing - contact Dan Jarvis
- 24 hours prior to testing blowout prevention equipment - contact Dan Jarvis
- 24 hours prior to spudding the well - contact Carol Daniels
- Within 24 hours of any emergency changes made to the approved drilling program - contact

Dustin Doucet

- Prior to commencing operations to plug and abandon the well - contact Dan Jarvis

The operator is required to get approval from the Division of Oil, Gas and Mining before performing any of the following actions during the drilling of this well:

- Plugging and abandonment or significant plug back of this well - contact Dustin Doucet
- Any changes to the approved drilling plan - contact Dustin Doucet

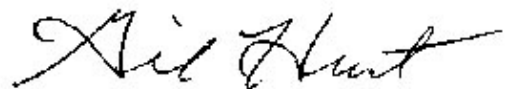
The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voice mail message if the person is not available to take the call):

- Dan Jarvis at: (801) 538-5338 office
(801) 942-0871 home
- Carol Daniels at: (801) 538-5284 office
- Dustin Doucet at: (801) 538-5281 office
(801) 733-0983 home

Reporting Requirements:

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

Approved By:



Gil Hunt
Associate Director, Oil & Gas

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: ML 23608
1. TYPE OF WELL Gas Well		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		8. WELL NAME and NUMBER: NBU 1021-13H4AS
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0652 FNL 1287 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENE Section: 13 Township: 10.0S Range: 21.0E Meridian: S		9. API NUMBER: 43047503400000
PHONE NUMBER: 720 929-6007 Ext		9. FIELD and POOL or WILDCAT: NATURAL BUTTES
COUNTY: UTAH		STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION <input type="checkbox"/> NOTICE OF INTENT Approximate date work will start: <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input checked="" type="checkbox"/> SPUD REPORT Date of Spud: 11/2/2009 <input type="checkbox"/> DRILLING REPORT Report Date:	TYPE OF ACTION <div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"> <input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION </div> <div style="width: 33%;"> <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER </div> <div style="width: 33%;"> <input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION <input type="text"/> OTHER: </div> </div>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. MIRU PETE MARTIN BUCKET RIG. DRILLED 20" CONDUCTOR HOLE TO 40'. RAN 14" 36.7# SCHEDULE 10 PIPE. CMT W/28 SX READY MIX. SPUD WELL LOCATION ON 11/2/2009 AT 08:00 HRS.		
Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY November 09, 2009		
NAME (PLEASE PRINT) Andy Lytle		PHONE NUMBER 720 929-6100
SIGNATURE N/A		TITLE Regulatory Analyst
DATE 11/9/2009		

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 6

ENTITY ACTION FORM

Operator: KERR McGEE OIL & GAS ONSHORE LP Operator Account Number: N 2995
Address: P.O. Box 173779
city DENVER
state CO zip 80217 Phone Number: (720) 929-6100

Well 1

NENE

API Number	Well Name	QQ	Sec	Twp	Rng	County
4304750340	NBU 1021-13H4AS	SENE	13	10S	21E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date	Entity Assignment Effective Date		
B	99999	2900	11/2/2009	11/10/09		
Comments: MIRU PETE MARTIN BUCKET RIG. WSMVD SPUD WELL LOCATION ON 11/2/2009 AT 8:00 HRS. BHL=SENE						

Well 2

NENE

API Number	Well Name	QQ	Sec	Twp	Rng	County
4304750339	NBU 1021-13H4CS	SENE	13	10S	21E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date	Entity Assignment Effective Date		
B	99999	2900	11/2/2009	11/10/09		
Comments: MIRU PETE MARTIN BUCKET RIG. WSMVD SPUD WELL LOCATION ON 11/2/2009 AT 11:00 HRS. BHL=SENE						

Well 3

API Number	Well Name	QQ	Sec	Twp	Rng	County
4304750333	NBU 1021-13A3CS	NENE	13	10S	21E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date	Entity Assignment Effective Date		
B	99999	2900	11/2/2009	11/10/09		
Comments: MIRU PETE MARTIN BUCKET RIG. WSMVD SPUD WELL LOCATION ON 11/2/2009 AT 13:00 HRS. BHL=NENE						

ACTION CODES:

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (Explain in 'comments' section)

ANDY LYTLE

Name (Please Print)

Signature

REGULATORY ANALYST

Title

11/9/2009

Date

RECEIVED

NOV 09 2009

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: ML 23608
1. TYPE OF WELL Gas Well		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		8. WELL NAME and NUMBER: NBU 1021-13H4AS
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0652 FNL 1287 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENE Section: 13 Township: 10.0S Range: 21.0E Meridian: S		9. API NUMBER: 43047503400000
PHONE NUMBER: 720 929-6007 Ext		9. FIELD and POOL or WILDCAT: NATURAL BUTTES
COUNTY: UTAH		STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> ALTER CASING	
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CASING REPAIR	
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 11/10/2009	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	
	<input type="checkbox"/> CHANGE TUBING	
	<input type="checkbox"/> CHANGE WELL STATUS	
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	
	<input type="checkbox"/> DEEPEN	
	<input type="checkbox"/> FRACTURE TREAT	
	<input type="checkbox"/> OPERATOR CHANGE	
	<input type="checkbox"/> PLUG AND ABANDON	
	<input type="checkbox"/> PRODUCTION START OR RESUME	
	<input type="checkbox"/> RECLAMATION OF WELL SITE	
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	
	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	
	<input type="checkbox"/> TUBING REPAIR	
	<input type="checkbox"/> VENT OR FLARE	
	<input type="checkbox"/> WATER SHUTOFF	
	<input type="checkbox"/> SI TA STATUS EXTENSION	
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	
	<input type="checkbox"/> OTHER	
	OTHER:	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. MIRU PROPETRO AIR RIG ON 11/6/2009. DRILLED 12-1/4" SURFACE HOLE TO 2436'. RAN 9-5/8" 40# J-55 SURFACE CSG. PUMP 20 BBLS GEL WATER AHEAD. CMT W/295 SX CLASS G PREM CMT @ 15.8 PPG, 1.15 YIELD. DISPLACE W/179 BBLS. BUMP PLUG 500 PSI OVER. FLOAT HELD. HAD NO RETURNS. TOP OUT #1 W/155 SX CLASS G @ 15.8 PPG, 1.15 YIELD. TOP OUT # 2 W/120 SX CLASS G @ 15.8 PPG, 1.15 YIELD. WORT.		
<div style="text-align: right;"> Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY November 10, 2009 </div>		
NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 11/12/2009	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: ML 23608
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3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		8. WELL NAME and NUMBER: NBU 1021-13H4AS
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PHONE NUMBER: 720 929-6007 Ext		9. FIELD and POOL or WILDCAT: NATURAL BUTTES
COUNTY: UTAH		STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> ALTER CASING	
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CASING REPAIR	
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 1/19/2010	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	
	<input type="checkbox"/> CHANGE TUBING	
	<input type="checkbox"/> CHANGE WELL STATUS	
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	
	<input type="checkbox"/> DEEPEN	
	<input type="checkbox"/> FRACTURE TREAT	
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	<input type="checkbox"/> VENT OR FLARE	
	<input type="checkbox"/> WATER SHUTOFF	
	<input type="checkbox"/> SI TA STATUS EXTENSION	
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	
	<input type="checkbox"/> OTHER	
	OTHER:	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. FINISHED DRILLING FROM 2436' TO 9650' ON 1/16/2010. RAN 4-1/2" 11.6# I-80 PRODUCTION CSG. PUMP 40 BBLS WATER AHEAD. LEAD CMT W/670 S CLASS G @ 12.3 PPG, 2.08 YIELD. TAILED CMT W/1350 SX CLASS G 50/50 POZ MIX @ 14.3 PPG, 1.25 YIELD. DISPLACED 149 BBLS WATER & BUMP PLUG W/500 OVER FINAL CIRC PRESSURE OF 2650. GOT BACK 15 BBLS WATER TO PIT. NIPPLE DOWN B.O.P'S & TRANS 750 BBLS MUD TO STORAGE & CLEAN OUT MUD TANKS. RELEASED ENSIGN 139 RIG @ 22:00 HRS ON 1/18/2010.		
<div style="text-align: right;"> Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY January 20, 2010 </div>		
NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 1/19/2010	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: ML 23608
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COUNTY: UTAH		STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
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<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	
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<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 6/15/2010	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	
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	<input type="checkbox"/> WATER SHUTOFF	
	<input type="checkbox"/> SI TA STATUS EXTENSION	
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	
	<input type="checkbox"/> OTHER	
	OTHER:	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. THE SUBJECT WELL WAS PLACED ON PRODUCTION ON JUNE 15, 2010 AT 10:57 A.M. THE CHRONOLOGICAL WELL HISTORY WILL BE SUBMITTED WITH THE WELL COMPLETION REPORT.		
Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY June 17, 2010		
NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 6/16/2010	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
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PHONE NUMBER: 720 929-6007 Ext		9. FIELD and POOL or WILDCAT: NATURAL BUTTES
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<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 6/15/2010	<input type="checkbox"/> DEEPEN	
	<input type="checkbox"/> OPERATOR CHANGE	
	<input checked="" type="checkbox"/> PRODUCTION START OR RESUME	
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	
	<input type="checkbox"/> TUBING REPAIR	
	<input type="checkbox"/> WATER SHUTOFF	
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	
	<input type="checkbox"/> ALTER CASING	
	<input type="checkbox"/> CHANGE TUBING	
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	
	<input type="checkbox"/> FRACTURE TREAT	
	<input type="checkbox"/> PLUG AND ABANDON	
	<input type="checkbox"/> RECLAMATION OF WELL SITE	
	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	
	<input type="checkbox"/> VENT OR FLARE	
	<input type="checkbox"/> SI TA STATUS EXTENSION	
	<input type="checkbox"/> OTHER	
	<input type="checkbox"/> CASING REPAIR	
	<input type="checkbox"/> CHANGE WELL NAME	
	<input type="checkbox"/> CONVERT WELL TYPE	
	<input type="checkbox"/> NEW CONSTRUCTION	
	<input type="checkbox"/> PLUG BACK	
	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION	
	<input type="checkbox"/> TEMPORARY ABANDON	
	<input type="checkbox"/> WATER DISPOSAL	
	<input type="checkbox"/> APD EXTENSION	
	OTHER:	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. THE SUBJECT WELL WAS PLACED ON PRODUCTION ON JUNE 15, 2010 AT 10:57 A.M. THE CHRONOLOGICAL WELL HISTORY WILL BE SUBMITTED WITH THE WELL COMPLETION REPORT.		
Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY June 17, 2010		
NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 6/16/2010	

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

AMENDED REPORT ☐ FORM 8
(highlight changes)

5. LEASE DESIGNATION AND SERIAL NUMBER:
ML 23608

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ DRY ☐ OTHER

b. TYPE OF WORK: NEW WELL ☒ HORIZ. LATS. ☐ DEEP-EN ☐ RE-ENTRY ☐ DIFF. RESVR. ☐ OTHER

2. NAME OF OPERATOR:
KERR MCGEE OIL & GAS ONSHORE, L.P.

3. ADDRESS OF OPERATOR: P.O. BOX 173779 CITY DENVER STATE CO ZIP 80217 PHONE NUMBER: (720) 929-6100

4. LOCATION OF WELL (FOOTAGES)
AT SURFACE: NENE 652 FNL & 1287 FEL S13, T10S, R21E
AT TOP PRODUCING INTERVAL REPORTED BELOW: SENE 2046 FNL & 132 FEL S13, T10S, R21E
AT TOTAL DEPTH: SENE 2049⁵⁰ FNL & 108² FEL S 13, T10S, R21E

7. UNIT or CA AGREEMENT NAME
UTU63047A

8. WELL NAME and NUMBER:
NBU 1021-13H4AS

9. API NUMBER:
4304750340

10. FIELD AND POOL, OR WILDCAT
NATURAL BUTTES

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
NENE 13 10S 21E S

12. COUNTY
UINTAH

13. STATE
UTAH

14. DATE SPUDDED: 11/2/2009 15. DATE T.D. REACHED: 1/16/2010 16. DATE COMPLETED: 6/15/2010 ABANDONED ☐ READY TO PRODUCE ☒ 17. ELEVATIONS (DF, RKB, RT, GL): 5261 GL

18. TOTAL DEPTH: MD 9,650 TVD 9,207 19. PLUG BACK T.D.: MD 9,576 TVD 9,133 20. IF MULTIPLE COMPLETIONS, HOW MANY? * 21. DEPTH BRIDGE MD PLUG SET: TVD

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)

BHV-SD/DSN/ACTR-CBL

23.
WAS WELL CORED? NO ☒ YES ☐ (Submit analysis)
WAS DST RUN? NO ☒ YES ☐ (Submit report)
DIRECTIONAL SURVEY? NO ☐ YES ☒ (Submit copy)

24. CASING AND LINER RECORD (Report all strings set in well)

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
20"	14" STL	36.7#		40		28			
12 1/4"	9 5/8" J-55	40#		2,420		570			
7 7/8"	4 1/2 I-80	11.6#		9,620		2,020			

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 3/8"	8,384							

26. PRODUCING INTERVALS

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)	INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
(A) WASATCH	6,273	7,312			6,273 7,312	0.36	120	Open <input checked="" type="checkbox"/> Squeezed <input type="checkbox"/>
(B) MESAVERDE	7,744	9,267			7,744 9,267	0.36	160	Open <input checked="" type="checkbox"/> Squeezed <input type="checkbox"/>
(C)								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
(D)								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>

27. PERFORATION RECORD

28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
6273-7312	PUMP 2,921 BBLS SLICK H2O & 117,786 LBS 30/50 SAND
7744-9267	PUMP 4,843 BBLS SLICK H2O & 164,713 LBS 30/50 SAND

29. ENCLOSED ATTACHMENTS:

☐ ELECTRICAL/MECHANICAL LOGS ☐ GEOLOGIC REPORT ☐ DST REPORT ☒ DIRECTIONAL SURVEY
☐ SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION ☐ CORE ANALYSIS ☐ OTHER:

30. WELL STATUS:

PROD

RECEIVED

31. INITIAL PRODUCTION

INTERVAL A (As shown in item #26)

DATE FIRST PRODUCED: 6/15/2010	TEST DATE: 6/21/2010	HOURS TESTED: 24	TEST PRODUCTION RATES: →	OIL – BBL: 0	GAS – MCF: 1,853	WATER – BBL: 648	PROD. METHOD: FLOWING
CHOKE SIZE: 20/64	TBG. PRESS. 401	CSG. PRESS. 927	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	INTERVAL STATUS: PROD

INTERVAL B (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	INTERVAL STATUS:

INTERVAL C (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	INTERVAL STATUS:

INTERVAL D (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	INTERVAL STATUS:

32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

33. SUMMARY OF POROUS ZONES (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
GREEN RIVER	1,364				
BIRD'S NEST	1,708				
MAHOGANY	2,187				
WASATCH	4,851	7,484			
MESAVERDE	7,484	9,650	TD		

35. ADDITIONAL REMARKS (Include plugging procedure)

ATTACHED IS THE CHRONOLOGICAL WELL HISTORY AND FINAL SURVEY.

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) ANDREW LYTLE

TITLE REGULATORY ANALYST

SIGNATURE 

DATE 7/15/2010

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

** ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

US ROCKIES REGION
Operation Summary Report

Well: NBU 1021-13H4AS GREEN Spud Conductor: 11/2/2009 Spud Date: 11/6/2009
 Project: UTAH-UINTAH Site: NBU 1021-13A PAD Rig Name No: ENSIGN 139/139, PROPETRO/
 Event: DRILLING Start Date: 9/25/2009 End Date: 1/18/2010
 Active Datum: RKB @5,276.01ft (above Mean Sea Level) UWI: NE/NE/0/10/S/21/E/13/0/0/26/PM/N/652.00/E/0/1,287.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
11/6/2009	11:30 - 18:30	7.00	MIRU	01	A	P		MOVE IN RIG UP
	18:30 - 20:00	1.50	DRLSUR	02	B	P		P/U AIR HAMMER DRILL TO 150'
	20:00 - 21:30	1.50	DRLSUR	06	A	P		TOH L/D AIR TOOLS, P/U MWD TOOLS TIH
	21:30 - 0:00	2.50	DRLSUR	02	D	P		DRLG. SLIDE F/ 150 TO 350 '
11/7/2009	0:00 - 3:30	3.50	DRLSUR	02	D	P		DRLG. SLIDE F/ 350 TO 700' WT 18-20 K RPM 40 MM RPM 014 650 GPM. ON BOTTOM PSI 1150 OFF 900 PSI ROP 100'
	3:30 - 13:30	10.00	DRLSUR	08	B	Z		FUEL FILTER PLUG ED UP ON RIG MOTOR CHANGED FILTERS STILL SMOKING BAD NO POWER WAIT ON WHEELER CAT MECH. RESET COMPUTER, CHANGE OUT CAT FUEL FILTER.
11/8/2009	13:30 - 0:00	10.50	DRLSUR	02	D	P		DRLG.SLIDE F/ 700 TO 1350. WT 12-15 K RPM 40 MM RPM 104 650 GPM. ON BOTTOM PSI 1500 OFF 1150 PSI ROP 71
	0:00 - 9:00	9.00	DRLSUR	02	D	P		DRLG..SLIDE F/ 1350 TO 1710 WT 12-15 K RPM 40 MM RPM 104 650 GPM. ON BOTTOM PSI 1500 OFF 1150 PSI ROP 71 HSM W/ DAY CREW
	9:00 - 23:00	14.00	DRLSUR	08	B	Z		RIG REPAIR TOH TO WORK ON SWIVEL PACKING REPLACED PACKING HOUSING P/U MWD TOOLS, TIH , WASH 210' TO BOTTOM
11/9/2009	23:00 - 0:00	1.00	DRLSUR	02	D	P		DRLG. SLIDE F/ 1710 TO 1750' 18-20K RPM 40 MMRPM 104 650 GPM. ON BOTTOM 1500 OFF 1150 HSM W/ NIGHT CREW
	0:00 - 2:30	2.50	DRLSUR	22	A	X		WORK STUCK PIPE @ 1750' LOST CIRC. WORK PIPE, AIRTATE WATER , GOT CIRC. BACK STILL COULD NOT MOVE PIPE, BLOWED HOLE DRY, FREE PIPE
	2:30 - 2:30	0.00	DRLSUR	05	A	P		CIRC HOLE CLEAN
	2:30 - 22:30	20.00	DRLSUR	02	D	P		DRLG. SLIDE. 1750 TO 2436 WT 11 K PUMP 1600 PSI OFF 1350 RPM 40 MM RPM 104 588 GPM ROP 34' (HAD TO SLIDE 20' EVERY JTS F/ 2037 TO 2436 DROPPING BAD)
11/10/2009	22:30 - 23:30	1.00	DRLSUR	05	A	P		CIRC. COND. HOLE
	23:30 - 0:00	0.50	DRLSUR	06	A	P		TOH TO L/D MWD TOOLS
	0:00 - 4:30	4.50	DRLSUR	06	A	P		TOH L/D MWD TOOLS
	4:30 - 8:00	3.50	DRLSUR	12	A	P		RIG UP HSM RUN 56 JTS 9 5/8 # 40 J-55 LT&C SHOE @ 2406, BAFFLE @ 2362
	8:00 - 8:30	0.50	DRLSUR	05	A	P		CIRC. 9 5/8 CASING, RIG RELEASEED @ 08:30 11/10/2009
	8:30 - 12:00	3.50	DRLSUR	12	B	P		RIG UP HSM W/ CEMENT CREW TEST LINE TO 2,000 PSI TAIL 15.8 Y 1.15 295 SX CMT 60.4 BBLs 2% CAL .25 LBS FLOW SEAL DISPLACED W/ 179.0 BBLs
1/2/2010	6:00 - 0:00	18.00	RDMO	01	E	P		BUMPED PLUG 500 PSI OVER LIT 180 PSI FLOATS HELD HAD NO RETRUNS TOP # 1 15.8 Y 1.15 4 % CAL. .25 LBSX FLOWSEAL 155 SX CMT TOP OUT # 2 15.8 Y 1.15 120 SX CMT 4% CAL. .25 LBSSX FLOWSEAL
1/3/2010	0:00 - 18:00	18.00	MIRU	01	A	P		RDRT MOVE START MOVE TO 1021-13H4AS,W/RW JONES
	18:00 - 0:00	6.00	MIRU	21	C	P		MIRU SET IN BACK YARD PITS,BOP,MATS & SUBS,9 TRUCKS & 2 FORKLIFTS
1/4/2010	0:00 - 6:00	6.00	MIRU	21	C	P		SDFN
			MIRU	21	C	P		SDFN

US ROCKIES REGION
Operation Summary Report

Well: NBU 1021-13H4AS GREEN	Spud Conductor: 11/2/2009	Spud Date: 11/6/2009
Project: UTAH-UINTAH	Site: NBU 1021-13A PAD	Rig Name No: ENSIGN 139/139, PROPETRO/
Event: DRILLING	Start Date: 9/25/2009	End Date: 1/18/2010
Active Datum: RKB @5,276.01ft (above Mean Sea Leve		
UWI: NE/NE/0/10/S/21/E/13/0/0/26/PM/N/652.00/E/0/1,287.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	6:00 - 0:00	18.00	MIRU	01	B	P		SET SUB,DERRICK ,RELEASE TRUCKS @ NOON,STRING UP ,RAISE DERRICK 16:30 CONTINUE RURT,BREAK TOUR,RURT ,THAW WATER & STEAM
1/5/2010	0:00 - 6:00	6.00	MIRU	08	A	Z		THAW OUT WATER & STEAM LINES ,HOOK UP HYD LINES ON PIT
	6:00 - 15:30	9.50	MIRU	01	B	P		PULL LINE ON DRUM,R/U FLOOR ,LOWER BOARD & IDH,WINCH LINES, FLOWLINES,PUMP LINES,FLARE LINES,PRE SPUD INSPECTION
	15:30 - 18:00	2.50	PRPSPD	14	A	P		NUBOP AND CHOKE LINE,HAMMER UP WEATHERFORD ADAPTER,TURN
	18:00 - 0:00	6.00	PRPSPD	15	A	P		BUCKLES,FUNCTION TEST
1/6/2010	0:00 - 8:30	8.50	PRPSPD	06	A	P		TEST BOP,ANNULAR 2.5K,CSG 1.5K,RAMS,CHOKE,MANIFOLD & KILL LINE 5K,250 LOWS,ALL OK,,INSTALL WEARRING
	8:30 - 10:00	1.50	DRLPRO	02	F	P		STRAP BHA,P/U BIT#1,DIR TOOLS & BHA & DP,INSTALL ROT RUBBER,LEVEL DERRICK
	10:00 - 15:00	5.00	DRLPRO	02	D	P		DRILL CEMENT & FE TO 2446'
	15:00 - 15:30	0.50	DRLPRO	07	A	P		DRILL-SLIDE F/ 2446 TO 2895 - 449' @ 89.8 FPH W/ 8.4 MUD WT - RPM 45 - MRPM 112 - WOB 14/16 - TQ 5/8 - GPM 487
	15:30 - 0:00	8.50	DRLPRO	02	D	P		SER RIG
1/7/2010	0:00 - 11:00	11.00	DRLPRO	02	D	P		DRILL-SLIDE F/ 2895 TO 3606 - 711' @ 83.6 FPH - W/ 8.4 MUD WT - RPM 45 - MRPM 112 - TQ 5/8 - GPM 487
	11:00 - 12:30	1.50	DRLPRO	08	A	Z		DRILL - SLIDE F/ 3606 TO 4573 - 967' @ 87.9 FPH W/ 8.5 MUD WT - RPM 45 - MRPM 112 - WOB 14/16 - TQ 10/8 - GPM 487
	12:30 - 13:00	0.50	DRLPRO	07	A	P		RESET PLC TO DRAWWORKS - MUD PUMPS
	13:00 - 0:00	11.00	DRLPRO	02	D	P		SER RIG
1/8/2010	0:00 - 15:30	15.50	DRLPRO	02	D	P		DRILL - SLIDE F/ 4573 TO 5077 - 504' @ 45.8 FPH W/ 8.5 MUD WT - RPM 45 - MRPM 112 - WOB 14/16 - TQ 11/8 - GPM 487
	15:30 - 16:00	0.50	DRLPRO	07	A	P		DRILL - SLIDE F/ 5077 TO 6200 - 1123' @ 72.4 FPH W/ 8.4 MUD WT - RPM 45 - MRPM 112 - WOB 14/16 - TQ 13/10 - GPM 487
	16:00 - 0:00	8.00	DRLPRO	02	D	P		SER RIG
1/9/2010	0:00 - 13:30	13.50	DRLPRO	02	D	P		DRILL-SLIDE F/ 6200 TO 6600 - 400' @ 50.0 FPH W/ 8.5 MUD WT - RPM 45 - MRPM 112 - WOB 14/16 - TQ 13/10 - GPM 487 (MUD UP SYSTEM
	13:30 - 14:00	0.50	DRLPRO	07	A	P		DRILL-SLIDE F/ 6600 TO 7106 - 506' @ 37.4 FPH W/ 10.4 MUD WT VIS 38 - RPM 45 - MRPM 112 - WOB 16/20 - TQ 14/11 - GPM 487
	14:00 - 0:00	10.00	DRLPRO	02	D	P		SER RIG
1/10/2010	0:00 - 15:00	15.00	DRLPRO	02	D	P		DRILL-SLIDE F/ 7106 TO 7387 -281 - @ 28.1 FPH W/ 10.7 MUD WT VIS 39 - RPM 45 - MRPM 112 - WOB 16/20 - TQ 14/11 - GPM 487 (WELL SEEPING FULD @ 10.7 MUD WT PUMP LCM SWEEPS)
	15:00 - 15:30	0.50	DRLPRO	07	A	P		DRILL-SLIDE F/ 7387 TO 7921 - 534' @ 35.6 FPH W/ 10.7 MUD WT - RPM 45 - MRPM 112 - WOB 18/22 - TQ 16/14 - GPM 487
	15:30 - 0:00	8.50	DRLPRO	02	D	P		RIG SER
1/11/2010	0:00 - 15:30	15.50	DRLPRO	02	D	P		DRILL-SLIDE F 7921 TO 8200- 279'- @ 34.8 FPH W/ 11.1 PPG MUD WT - RPM 45 - MRPM 112 - WOB 18/22 - TQ 16/14 - GPM 487
	15:30 - 16:00	0.50	DRLPRO	07	A	P		DRILL - SLIDE F/ 8200 TO 8555 - 355' @ 22.9 FPH W/ 11.6 PPG MUD WT - RPM 45 - MRPM 112 - WOB 23/18 - TQ 19/15 - GPM 487
								SER RIG

US ROCKIES REGION
Operation Summary Report

Well: NBU 1021-13H4AS GREEN	Spud Conductor: 11/2/2009	Spud Date: 11/6/2009
Project: UTAH-UINTAH	Site: NBU 1021-13A PAD	Rig Name No: ENSIGN 139/139, PROPETRO/
Event: DRILLING	Start Date: 9/25/2009	End Date: 1/18/2010
Active Datum: RKB @5,276.01ft (above Mean Sea Level) UWI: NE/NE/0/10/S/21/E/13/0/0/26/PM/N/652.00/E/0/1,287.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
1/12/2010	16:00 - 18:00	2.00	DRLPRO	06	A	P		T.O.H - PULL FIRST 10 STANDS W/ ROT/PUMP OVER PULL 100K PLUS STRING WT 190K - @ 7876
	18:00 - 0:00	6.00	DRLPRO	08	A	Z		WORK ON IRON DERRICK (PIVOT CONTROL NUT BROKE OFF PLATE THIS IS WHERE THE INCODER WAS BOLT TO WHICH MADE IRON TO OVER EXTENDED.
	0:00 - 2:30	2.50	DRLPRO	08	A	Z		REPAIR IRON DERRICK HAND & C/O INCODER
	2:30 - 7:00	4.50	DRLPRO	06	A	P		CONT. T.O.H & PUMPED & ROT OUT TO 6,800 & PUMP DRY JOB & CONT. T.O.H TO CASING SHOE.
1/13/2010	7:00 - 0:00	17.00	DRLPRO	08	A	Z		WORK ON IRON DERRICK HAND - BOTH HANDELING PINS BROKE. HELD S/M R/U CRANE TO L/D IRON DERRICK HAND ON CATWALK F/ REPAIR. (WELL BORE IS STATIC
	0:00 - 0:00	24.00	DRLPRO	08	A	Z		REPAIR I.D.M & WAIT ON HANDLER PINS F/ CANADA.
1/14/2010	0:00 - 21:00	21.00	DRLPRO	08	A	Z		REPAIR I.D.M & PU W/ CRANE INSTALL I.D.M & RECONNECT HDY & ELECTRIC - INTERNET CABLES & WORK ON POWER SHOE IT WOULD OPEN OR CLOSE ON PIPE.
1/15/2010	21:00 - 0:00	3.00	DRLPRO	06	A	P		FINISH - T.O.H & L/D DIR TOOLS & P/U BIT-MOTOR-MONEL
	0:00 - 1:30	1.50	DRLPRO	08	A	Z		WORK ON I.D.M - FIX HYD LEAKS
	1:30 - 9:30	8.00	DRLPRO	06	A	P		T.I.H & BREAK CIRC 2 TIME & @ CASING SHOE & @ 6,200 & CONT. T.I.H TAG TIGHT SPOT @ 7,728 (NOTE CIRC TIME 1.5 HOURS)
	9:30 - 12:00	2.50	DRLPRO	03	E	P		WASH F/ 7,728 TO 8555 - 827 FT (NO FILL)
1/16/2010	12:00 - 12:30	0.50	DRLPRO	02	D	P		DRILL F/ 8555 TO 8588 - 33' @ 66' FPH W/ 11.5 MUD WT - RPM 45 - MRPM 63 - WOB 14/16 - TQ 16/12 - GPM 453
	12:30 - 13:00	0.50	DRLPRO	07	A	P		SER RIG
	13:00 - 0:00	11.00	DRLPRO	02	D	P		DRILL F/ 8588 TO 9042 - 454' @ 41.2 FPH W/ 11.8 MUD WT - RPM 45 - MRPM 63 - WOB 14/16 - TQ 16/12 - GPM 453
	0:00 - 14:30	14.50	DRLPRO	02	D	P		DRILL F/ 9042 TO 9650 - 608' @ 41.93 FPH W/ 12.0 PPG MUD WT - RPM 45 - MRPM 63 - WOB 16/18 - TQ 18/15 - GPM 453
1/17/2010	14:30 - 15:30	1.00	DRLPRO	05	A	P		CIRC BTM UP
	15:30 - 0:00	8.50	DRLPRO	06	E	S		SHORT TRIP TO SHOE (PUMP OUT 28 STANDS W/ 115K OVER STRING WT OF 200K
	0:00 - 5:00	5.00	DRLPRO	06	E	P		FINISH SHORT TRIP T.I.H & TAG BRIDGE @ 7734 TO 7777 - CONT. T.I.H
	5:00 - 7:30	2.50	DRLPRO	05	A	P		CIRC BTM UP TWICE
1/18/2010	7:30 - 19:30	12.00	DRLPRO	06	B	P		T.O.H F/ LOGS PUMP OUT 28 STANDS -100 - 115K OVER PULL - PUMP DRY JOB - DROP SURVEY & CONT. T.O.H & L/D HWDP F/ HARD BANNING. PULL WEAR BUSHING
	19:30 - 0:00	4.50	DRLPRO	11	D	P		HELD S/M - R/U HALLIBURTON WIRELINE RUN TRIPLE CONBO TO @ 7,400 BRIDGE OUT LOG OUT.
	0:00 - 1:30	1.50	DRLPRO	11	D	P		FINISH LOGGING OUT F/ 7400 & R/D HALLIBURTON
	1:30 - 13:00	11.50	DRLPRO	12	C	P		R/U CSG CREW & RUN 222 JTS 4 1/2 - I -80 BTC PLUS MARKER - SHOE SET @ 9620 F/C @ 9578 & WASH F/ 7,367 TO 7,846 - 479 FT. THEN CONT. RUN CASING TO BTM.
	13:00 - 14:30	1.50	DRLPRO	05	A	P		RIG HALLIBUTON CEMENT HEAD & CIRC OUT GAS

US ROCKIES REGION
Operation Summary Report

Well: NBU 1021-13H4AS GREEN			Spud Conductor: 11/2/2009			Spud Date: 11/6/2009				
Project: UTAH-UINTAH			Site: NBU 1021-13A PAD				Rig Name No: ENSIGN 139/139, PROPETRO/			
Event: DRILLING			Start Date: 9/25/2009					End Date: 1/18/2010		
Active Datum: RKB @5,276.01ft (above Mean Sea Leve			UWI: NE/NE/0/10/S/21/E/13/0/0/26/PM/N/652.00/E/0/1,287.00/0/0							
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation		
	14:30 - 17:00	2.50	DRLPRO	12	E	P		HELD S/M W/ HALLIBURTON & TEST LINE 5,000 PSI & CEMENT W/ 40 BBLS WATER AHEAD & F/ LEAD 670 SKS - 12.3 PPG YIELD 2.08 & F/ TAIL 1350 SKS - 14.3 - YIELD 1.25 - DISPLACED 149 BBLS WATER & BUMP PLUG W/ 500 OVER FINAL CIRC PRESSURE OF 2650 - GOT BACK 15 BBLS WATER TO PIT.		
	17:00 - 18:00	1.00	DRLPRO	14	B	P		LAND CASING & L/D LANDING JT & SET PACK OFF.		
	18:00 - 22:00	4.00	DRLPRO	14	A	P		NIPPLE DOWN B.O.P'S & TRANS 750 BBLS MUD TO STORAGE & CLEAN OUT MUD TANKS & RELEASED RIG @ 22:00 HRS ON 1/18/2010		

US ROCKIES REGION
Operation Summary Report

Well: NBU 1021-13H4AS GREEN Spud Conductor: 11/2/2009 Spud Date: 11/6/2009
 Project: UTAH-UINTAH Site: NBU 1021-13A PAD Rig Name No: GWS 1/1
 Event: COMPLETION Start Date: 6/7/2010 End Date: 6/14/2010
 Active Datum: RKB @5,276.01ft (above Mean Sea Leve UWI: NE/NE/0/10/S/21/E/13/0/0/26/PM/N/652.00/E/0/1,287.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
6/4/2010	7:00 - 7:30	0.50	COMP	48		P		HSM. FRACING & PERFORATING ON A PAD WELL
	10:30 - 12:00	1.50	COMP	37	B	P		STG 1) PU 3 1/8" EXP GNS, 23 GRM, .36 HOLES, 90 DEG PHASING & RIH. PERF 9,264'-67' 4SPF, THEN BRK DWN PERFS @ 4,763 PSI @ 1.7 BPM. ISIP 2,520 PSI, FG .71 PERF 9,136'-38' 4SPF, 9,116'-18' 4SPF, 9,087'-89' 4SPF, 9,026'-27' 4SPF, 40 HOLES. SWI SDFWE.
6/7/2010	6:30 - 7:00	0.50	COMP	48		P		HSM. FRACING & PERFORATING ON A PAD WELL
	6:30 - 8:04	1.57	COMP	36	B	P		STG1) WHP 1,518 PSI, START STEP DOWN TEST PUMP 46.5 BPM @ 5,359 PSI, 41.8 BPM @ 4,906 PSI, 23.9 BPM @ 3,624 PSI, 6.3 BPM @ 2,912 PSI, ISIP 2,700 FG .73.
								MP 6,341 PSI, MR 51 BPM, AP 5,006 PSI, AR 50.7 BPM, ISIP 2,729 PSI, FG .73, NPI 29 PSI. PMP 1,312 BBLs OF SW & 37,987 LBS OF 30/50 SAND & 5,000 LBS OF 20/40 RESIN SAND. TOTAL PROP 42,987 LBS.
	10:32 - 10:55	0.38	COMP	36	B	P		STG 2) PU 4 1/2" HALL CBP & 3 1/8" EXP GNS, 23 GRM, .36 HOLES, 90 DEG PHASING & RIH. SET CBP @ 8,484' & PERF 8,448'-54' 4SPF, THEN BRK DWN PERFS @ 6,500 PSI @ 1.7 BPM. ISIP 3,450 PSI, FG .84. PERF 8,408'-12' 4SPF, 40 HOLES.
								WHP 1,165 PSI, START STEP DOWN TEST PUMP 48.5 BPM @ 4,665 PSI, 41.3 BPM @ 4,182 PSI 21.5 BPM @ 3,075 PSI, 00 BPM @ 0,000 PSI, ISIP 2,412 FG .72.
								100% HOLES OPEN.
								MP 6,335 PSI, MR 52.7 BPM, AP 4,320 PSI, AR 51.5 BPM. ISIP 2,494 PSI, FG .73, NPI 82 PSI. PMP 973 BBLs OF SW & 27,377 LBS OF 30/50 SAND & 5,000 LBS OF 20/40 RESIN SAND. TOTAL PROP 32,377 LBS.
	11:30 - 13:00	1.50	COMP	34	H	P		STG 3) PU 4 1/2" HALL CBP & 3 1/8" EXP GNS, 23 GRM, .36 HOLES, 90 DEG PHASING & RIH. SET CBP @ 8,174' & PERF 8,138'-44' 4SPF, THEN BRK DWN PERFS COULD NOT GET A BRK. PERF 8,106'-10' 4SPF, 40 HOLES.
								POOH W / WIRE LINE @ 3,570' GUNS FELL OFF. SWI WILL FINISH COMPLETION WHEN A RIG MOVES IN.
6/9/2010	6:30 - 7:00	0.50	COMP	48		P		HSM. FISHING & PICKING UP TBG OFF OF TRLG.
	7:00 - 8:30	1.50	COMP	30	A	P		MIRU SPOT IN EQUIPMENT.
	8:30 - 17:00	8.50	COMP	31	B			ND TOP FRAC VALVE. NU BOP'S.
								PU OVERSHOT W / 3' EXT, BUMPER SUB, JARS & 6' PUP.
								PU OFF TRL 258 JTS 2 3/8" L-80. LATCHED ON TO FISH @ 8,153' THINK WE HAVE FISH.
								POOH STAND W / 50 STANDS EOT @ 4,962'. SWI SDFN.
6/10/2010	6:30 - 7:30	1.00	COMP	48		P		HSM. FISHING OPERATIONS
	7:30 - 8:00	0.50	COMP	31	B	P		CONTINUE POOH W / FISHING TOOLS . GOT FISH OUT BOTTOM GUN HAD NOT SHOT.
								MIRU RU CASED HOLE SOLUTIONS TO PERFORATE.

US ROCKIES REGION
Operation Summary Report

Well: NBU 1021-13H4AS GREEN		Spud Conductor: 11/2/2009	Spud Date: 11/6/2009
Project: UTAH-UINTAH		Site: NBU 1021-13A PAD	Rig Name No: GWS 1/1
Event: COMPLETION		Start Date: 6/7/2010	End Date: 6/14/2010
Active Datum: RKB @5,276.01ft (above Mean Sea Leve) UWI: NE/NE/0/10/S/21/E/13/0/0/26/PM/N/652.00/E/0/1,287.00/0/0			

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	8:00 - 19:00	11.00	COMP	34	H	P		MIRU RU CASED HOLE SOLUTIONS TO PERFORATE. PU 3 1/8" EXP GNS, 23 GRM, .36 HOLES, 90 DEG PHASING & RIH. STACKED OUT & GOT STUCK GOT FREE NOT DEEP ENOUGH TO PERF. POOH W / PERF GUNS. ND FRAC VALVE & NU BOP. PU 3 7/8" BIT & POBS RIH. CIRCULATED DOWN TO 8,174'. CIRC WELL CLEAN. POOH W / TBG. TO 3,727'. SHUT DOWN DUE TO HIGH WINDS. SWI SDFN HSM, WIRE LINE & FRACING
6/11/2010	6:00 - 6:15	0.25	COMP	48		P		POOH W/TBG, ND BOPS, NU FRAC VALVE.
	6:15 - 7:00	0.75	COMP	31	I	P		RU CASED HOLE.
	7:00 - 10:00	3.00	COMP	36	B	P		STG 3) PU 4 1/2" HALL CBP & 3 1/8" EXP GNS, 23 GRM, .36 HOLES, 90 DEG PHASING & RIH. PERF MESA VERDE @ 8,138'-44' 4SPF 24SHOTS, REPERFORATED 8,106'-10' 4SPF 16 SHOTS TOTAL 32 SHOTS, TOTAL 56 SHOT. PRIME PUMPS & PRESS TEST TO 8,000 PSI. WHP 0 PSI, BREAK 4547 PSI @ 7.8 BPM, START STEP DOWN TEST PUMP 52.8 BPM @ 4,411 PSI, 42.9 BPM @ 3,844 PSI 13 BPM @ 2,699 PSI, 6.3 BPM @ 2,516 PSI, ISIP 2,563 FG .75. 100% HOLES OPEN. MP 6,083 PSI, MR 52.8 BPM, AP 3,520 PSI, AR 45.3 BPM. ISIP 2,628 PSI, FG.76 , NPI 65 PSI. PMP 1,111 BBLs OF SW & 27,648 LBS OF 30/50 SAND & 5,000 LBS OF 20/40 RESIN SAND. TOTAL PROP 32,648 LBS.
	10:00 - 12:00	2.00	COMP	36	B	P		STG 4) PU 4 1/2" HALL CBP & 3 1/8" EXP GNS, 23 GRM, .36 HOLES, 90 DEG PHASING & RIH. SET CBP @ 8,030' & PERF MESA VERDE 7,998'-8,000' 4SPF 8SHOTS, THEN BRK DWN PERFS @ 3,951 PSI @ 2.3 BPM. ISIP 2,457 PSI, FG .75. PERF MESA VERDE @ 7,938'-40' 4SPF 8 SHOTS, 7,884'-87' 4SPF 12 SHOTS, 7,860'-61' 4SPF 4 SHOTS, 7,785'-86' 4SPF 4 SHOTS, 7,744'-45' 4SPF 4 SHOTS, 40 HOLES. WHP 1,512 PSI, START STEP DOWN TEST PUMP 49.4 BPM @ 4,252 PSI, 41.4 BPM @ 3,561 PSI 25.9 BPM @ 2,711 PSI, 8.1 BPM @ 2,244 PSI, ISIP 2,226 FG .72. 100% HOLES OPEN. MP 4,352 PSI, MR 53.1 BPM, AP 3,657 PSI, AR 51 BPM. ISIP 2,445 PSI, FG.75, NPI 219 PSI. PMP 1,447 BBLs OF SW & 51,701 LBS OF 30/50 SAND & 5,000 LBS OF 20/40 RESIN SAND. TOTAL PROP 56,701 LBS.

US ROCKIES REGION
Operation Summary Report

Well: NBU 1021-13H4AS GREEN	Spud Conductor: 11/2/2009	Spud Date: 11/6/2009
Project: UTAH-UINTAH	Site: NBU 1021-13A PAD	Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 6/7/2010	End Date: 6/14/2010
Active Datum: RKB @5,276.01ft (above Mean Sea Leve		
UWI: NE/NE/0/10/S/21/E/13/0/0/26/PM/N/652.00/E/0/1,287.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	12:00 - 13:30	1.50	COMP	36	B	P		STG 5) PU 4 1/2" HALL CBP & 3 1/8" EXP GNS, 23 GRM, .36 HOLES, 90 DEG PHASING & RIH. SET CBP @ 7,342' & PERF WASATCH @ 7,307'-12' 4SPF 20 SHOTS, THEN BRK DWN PERFS @ 2,291 PSI @ 3.3 BPM. ISIP 1,862 PSI, FG .69. PERF WASATCH @ 7,171'-76' 4SPF 20 SHOTS, TOTAL 40 HOLES. WHP 490 PSI, START STEP DOWN TEST PUMP 47.5 BPM @ 5,516 PSI, 40 BPM @ 4,689 PSI 30 BPM @ 3,774 PSI, 21.9 BPM @ 3,142 PSI, ISIP 2,427 FG .77. 55% 22/40 HOLES OPEN. MP 5,522 PSI, MR 51.4 BPM, AP 4,140 PSI, AR 50.8 BPM. ISIP 2,717 PSI, FG.81, NPI 290 PSI. PMP 852 BBLs OF SW & 24,592 LBS OF 30/50 SAND & 5,000 LBS OF 20/40 RESIN SAND. TOTAL PROP 29,592 LBS.
	13:30 - 15:00	1.50	COMP					STG 6) PU 4 1/2" HALL CBP & 3 1/8" EXP GNS, 23 GRM, .36 HOLES, 90 DEG PHASING & RIH. SET CBP @ 6,964' & PERF WASATCH @ 6,932'-34' 4SPF 8 SHOTS, THEN BRK DWN PERFS @ 2,628 PSI @ 2.7 BPM. ISIP 2,356 PSI, FG .78. PERF WASATCH @ 6,790'-96' 4SPF 24 SHOTS, 6,716'-18' 4SPF 8 SHOTS, TOTAL 40 HOLES. WHP 1,252 PSI, START STEP DOWN TEST PUMP 48.5 BPM @ 4,057 PSI, 40.8 BPM @ 3,472 PSI 22.2 BPM @ 2,486 PSI, 11.5 BPM @ 2,079 PSI, ISIP 1,825 FG .71. 80% 32/40 HOLES OPEN. MP 4,902 PSI, MR 52.2 BPM, AP 3,614 PSI, AR 51.5 BPM. ISIP 2,067 PSI, FG.74, NPI 242 PSI. PMP 1,263 BBLs OF SW & 50,736 LBS OF 30/50 SAND & 5,000 LBS OF 20/40 RESIN SAND. TOTAL PROP 55,736 LBS.
	15:00 - 17:00	2.00	COMP					STG 7) PU 4 1/2" HALL CBP & 3 1/8" EXP GNS, 23 GRM, .36 HOLES, 90 DEG PHASING & RIH. SET CBP @ 6,530' & PERF WASATCH @ 6,492'-6,500' 4SPF 32 SHOTS, THEN BRK DWN PERFS @ 1,813 PSI @ 3 BPM. ISIP 803 PSI, FG .56. PERF WASATCH @ 6,273'-75' 4SPF 8 SHOTS, TOTAL 40 HOLES. WHP 348 PSI, START STEP DOWN TEST PUMP 51.3 BPM @ 3,892 PSI, 43.7 BPM @ 3,224 PSI 22.2 BPM @ 2,156 PSI, 11.8 BPM @ 1,807 PSI, ISIP 1,754 FG .71. 93% 37/40 HOLES OPEN. MP 4,016 PSI, MR 51.9 BPM, AP 3,236 PSI, AR 51.5 BPM. ISIP 1,972 PSI, FG.75, NPI 218 PSI. PMP 806 BBLs OF SW & 27,458 LBS OF 30/50 SAND & 5,000 LBS OF 20/40 RESIN SAND. TOTAL PROP 32,458 LBS.
	17:00 - 18:30	1.50	COMP					CUMM SAND 282,499 # CUMM WATER 7,764 BBLs SET KILL PLUG @ 6,200' RD WL, ND FRAC, NU WH & FLOOR & TBG EQUIP FOR DRILL OUT MONDAY.
6/14/2010	6:30 - 6:45	0.25	COMP	48		P		HSM. LANDING TBG.

US ROCKIES REGION

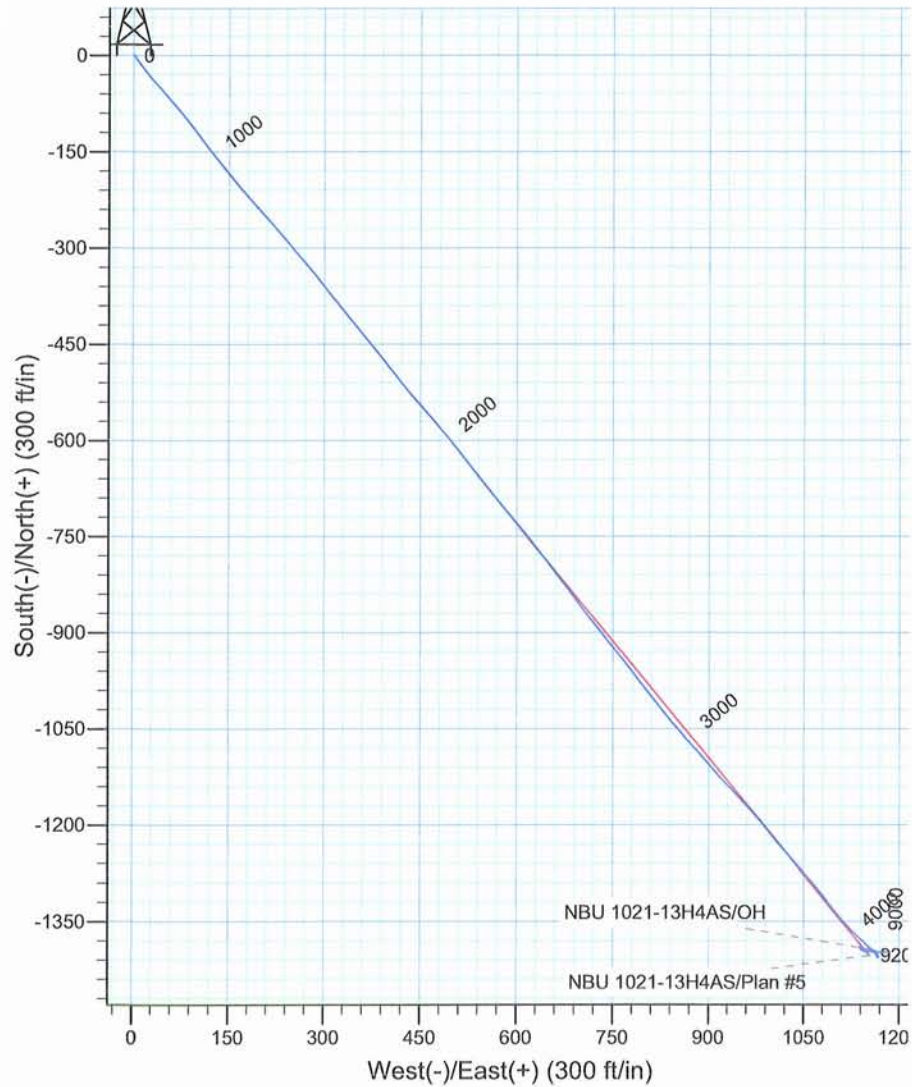
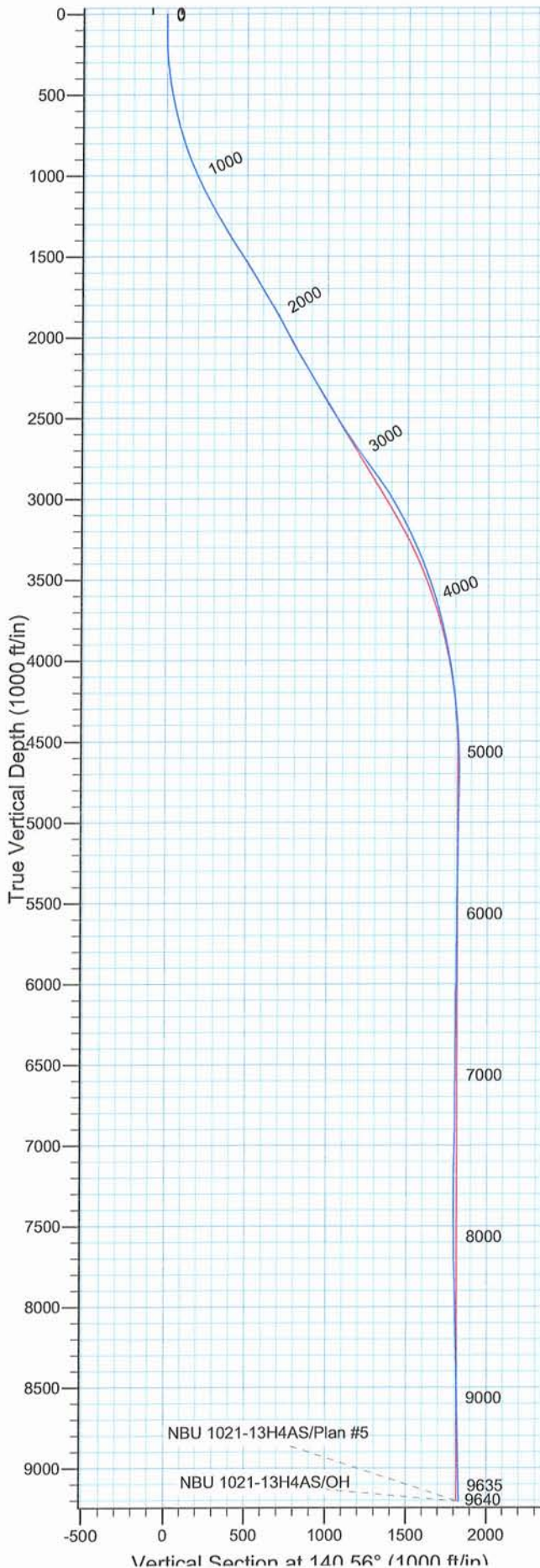
Operation Summary Report

Well: NBU 1021-13H4AS GREEN	Spud Conductor: 11/2/2009	Spud Date: 11/6/2009
Project: UTAH-UINTAH	Site: NBU 1021-13A PAD	Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 6/7/2010	End Date: 6/14/2010
Active Datum: RKB @5,276.01ft (above Mean Sea Level) UWI: NE/NE/0/10/S/21/E/13/0/0/26/PM/N/652.00/E/0/1,287.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	6:45 - 16:30	9.75	COMP	44	C	P		<p>SICP 0#.</p> <p>PU 3 7/8 SEALED BEARING BIT + X-DART + POBS + XN-NIPPLE 1.875. RIH W/ 2 3/8 L-80 TBG & TAG FILL @ 6190'. RU DRL EQUIP & PUMP & LINES. BKR CONV CIRC, BEG DRL OUT.</p> <p>CBP # 1) TAG FILL @ 6213' = 10' SAND. CO SAND. DRL OUT CBP @ 6223' IN 5 MIN. 250# INCR. CONT RIH.</p> <p>CBP #2)TAG FILL @ 6520' = 10' SAND. CO SAND. DRL OUT CBP @ 6530' IN 8 MIN. 600 PSI INCR. CONT RIH.</p> <p>CBP #3) TAG FILL @ 6934' = 30' SAND. CO SAND. DRL OUT CBP @ 6964' IN 5 MIN. 100 PSI INCR. CONT RIH.</p> <p>CBP #4) TAG FILL @ 7312' = 30' SAND. CO SAND. DRL OUT CBP @ 7342' IN 5 MIN. 250 PSI INCR. CONT RIH.</p> <p>CBP #5) TAG FILL @ 8010' = 20' SAND. CO SAND. DRL OUT CBP @ 8030' IN 4 MIN. 300 PSI INCR. CONT RIH.</p> <p>CBP #6) TAG FILL @ 8144' = 30' SAND. CO SAND. DRL OUT CBP @ 8174' IN 4 MIN. 100 PSI INCR. CONT RIH.</p> <p>CBP #7) TAG FILL @ 8454' = 30' SAND. CO SAND. DRL OUT CBP @ 8484' IN 5 MIN. 100 PSI INCR. CONT RIH.</p> <p>CO 133' BELOW BTM PERF. CIRC WELL. RD DRL EQUIP. POOH LD EXESS 2 3/8 L-80 TBG. PU 7 1/16 TBG HNGR & LAND TBG W/</p> <p>KB = 13.00 7 1/16 5K TBG HNGR = 1.00 265 JTS 2 3/8 L-80 TBG = 8368.38 XN-NIPPLE 1.875 = 2.20 EOT = 8384.58</p> <p>ND BOP NU WH. DROP BALL. PUMP BIT OFF W/ 20 BBLS. SWI FOR 30 MIN T/ LET BIT FALL. OPEN WELL T/ PIT ON 42/42 CHOKE T/ UNLOAD TBG.</p> <p>FTP = 50 PSI. SICP = 1100 PSI. TURN WELL OVER T/ FBC. SDFN.</p>
6/15/2010	7:00 -			33	A			<p>7 AM FLBK REPORT: CP 1000#, TP 1000#, 20/64" CK, 40 BWPH, 1/2C SAND, - GAS</p> <p>TTL BBLS RECOVERED: 2516</p> <p>BBLS LEFT TO RECOVER: 5248</p> <p>WELL TURNED TO SALES @ 1057 ON 6/15/2010 - 540 MCFD, 960 BWPD, CP 1100#, FTP 900#, CK 20/64"</p>
	10:57 -		PROD	50				
6/16/2010	7:00 -			33	A			<p>7 AM FLBK REPORT: CP 1200#, TP 1450#, 20/64" CK, 25 BWPH, TBSP SAND, - GAS</p> <p>TTL BBLS RECOVERED: 3251</p> <p>BBLS LEFT TO RECOVER: 5413</p>
6/17/2010	7:00 -			33	A			<p>7 AM FLBK REPORT: CP 2200#, TP 1450#, 20/64" CK, 20 BWPH, 1/2 TSP SAND, - GAS</p> <p>TTL BBLS RECOVERED: 3731</p> <p>BBLS LEFT TO RECOVER: 4033</p>
6/18/2010	7:00 -			33	A			<p>7 AM FLBK REPORT: CP 2150#, TP 1400#, 20/64" CK, 15 BWPH, TRACE SAND, - GAS</p> <p>TTL BBLS RECOVERED: 4141</p> <p>BBLS LEFT TO RECOVER: 3623</p>

US ROCKIES REGION
Operation Summary Report

Well: NBU 1021-13H4AS GREEN			Spud Conductor: 11/2/2009			Spud Date: 11/6/2009		
Project: UTAH-UINTAH			Site: NBU 1021-13A PAD				Rig Name No: GWS 1/1	
Event: COMPLETION			Start Date: 6/7/2010				End Date: 6/14/2010	
Active Datum: RKB @5,276.01ft (above Mean Sea Leve			UWI: NE/NE/0/10/S/21/E/13/0/0/26/PM/N/652.00/E/0/1,287.00/0/0					
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation



WELL DETAILS: NBU 1021-13H4AS

Ground Level: GL 5261' & RKB 14' @ 5275.00ft (Ensign 145)
+N/-S +E/-W Northing Easting Latitude Longitude
0.00 0.00 596538.49 2562222.69 39° 57' 13.850 N 109° 29' 39.356 W

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well NBU 1021-13H4AS, True North
Vertical (TVD) Reference: GL 5261' & RKB 14' @ 5275.00ft (Ensign 145)
Section (VS) Reference: Slot - (0.00N, 0.00E)
Measured Depth Reference: GL 5261' & RKB 14' @ 5275.00ft (Ensign 145)
Calculation Method: Minimum Curvature
Local North: True
Location: Sec 1 T10S R21E

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302

Design: OH (NBU 1021-13H4AS/OH)

Created By: Rex Hall Date: 2010-02-07



Scientific Drilling
Rocky Mountain Operations

Kerr McGee Oil and Gas Onshore LP

Uintah County, UT NAD27
NBU 1021-13A Pad
NBU 1021-13H4AS
OH

Design: OH

Standard Survey Report

07 February, 2010



Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT NAD27
Site: NBU 1021-13A Pad
Well: NBU 1021-13H4AS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 1021-13H4AS
TVD Reference: GL 5261' & RKB 14' @ 5275.00ft (Ensign 145)
MD Reference: GL 5261' & RKB 14' @ 5275.00ft (Ensign 145)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Multi-User Db

Project	Uintah County, UT NAD27		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Utah Central 4302		

Site	NBU 1021-13A Pad, Sec 1 T10S R21E			
Site Position:		Northing:	596,538.51 ft	Latitude: 39° 57' 13.850 N
From:	Lat/Long	Easting:	2,562,222.69 ft	Longitude: 109° 29' 39.356 W
Position Uncertainty:	0.00 ft	Slot Radius:	in	Grid Convergence: 1.28 °

Well	NBU 1021-13H4AS, 652' FNL 1287' FEL			
Well Position	+N/-S	0.00 ft	Northing:	596,538.49 ft
	+E/-W	0.00 ft	Easting:	2,562,222.69 ft
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft	Ground Level: 5,261.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	11/6/2009	11.27	65.87	52,461

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	10.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	10.00	0.00	0.00	140.56	

Survey Program	Date 2/7/2010				
From	To	Survey (Wellbore)	Tool Name	Description	
(ft)	(ft)				
107.00	2,446.00	Survey #1 - Surface (OH)	MWD SDI	MWD - Standard ver 1.0.1	
2,522.00	9,650.00	Survey #2 - Production (OH)	MWD SDI	MWD - Standard ver 1.0.1	

Survey									
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)
10.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00
107.00	0.46	91.47	107.00	-0.01	0.39	0.25	0.47	0.47	0.00
136.00	0.33	110.38	136.00	-0.04	0.58	0.40	0.63	-0.45	65.21
165.00	1.20	120.23	165.00	-0.22	0.92	0.76	3.02	3.00	33.97
195.00	2.53	132.86	194.98	-0.83	1.68	1.71	4.61	4.43	42.10
224.00	3.59	138.09	223.94	-1.94	2.76	3.25	3.78	3.66	18.03
253.00	4.75	139.00	252.86	-3.53	4.15	5.36	4.01	4.00	3.14
282.00	5.70	141.11	281.74	-5.55	5.84	8.00	3.34	3.28	7.28
311.00	5.82	142.35	310.59	-7.84	7.65	10.91	0.60	0.41	4.28
341.00	5.80	142.95	340.44	-10.25	9.49	13.94	0.21	-0.07	2.00
370.00	6.57	143.45	369.27	-12.75	11.36	17.07	2.66	2.66	1.72
399.00	7.42	143.99	398.05	-15.60	13.45	20.59	2.94	2.93	1.86

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT NAD27
Site: NBU 1021-13A Pad
Well: NBU 1021-13H4AS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 1021-13H4AS
TVD Reference: GL 5261' & RKB 14' @ 5275.00ft (Ensign 145)
MD Reference: GL 5261' & RKB 14' @ 5275.00ft (Ensign 145)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Multi-User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
428.00	8.40	142.78	426.78	-18.80	15.83	24.58	3.43	3.38	-4.17
457.00	9.67	142.72	455.42	-22.43	18.59	29.13	4.38	4.38	-0.21
487.00	10.44	142.66	484.96	-26.59	21.76	34.36	2.57	2.57	-0.20
517.00	11.33	141.02	514.42	-31.05	25.26	40.03	3.14	2.97	-5.47
547.00	12.05	139.93	543.79	-35.73	29.13	46.10	2.51	2.40	-3.63
577.00	12.74	139.59	573.09	-40.65	33.29	52.54	2.31	2.30	-1.13
607.00	13.69	139.35	602.30	-45.86	37.75	59.40	3.17	3.17	-0.80
637.00	14.41	137.99	631.40	-51.33	42.56	66.68	2.64	2.40	-4.53
667.00	15.39	138.12	660.39	-57.07	47.72	74.38	3.27	3.27	0.43
697.00	15.66	138.99	689.30	-63.08	53.03	82.41	1.19	0.90	2.90
727.00	16.26	139.14	718.14	-69.32	58.44	90.66	2.00	2.00	0.50
757.00	17.00	139.32	746.89	-75.82	64.04	99.24	2.47	2.47	0.60
787.00	17.62	138.58	775.53	-82.55	69.91	108.16	2.19	2.07	-2.47
817.00	18.31	139.92	804.07	-89.56	75.94	117.41	2.68	2.30	4.47
847.00	18.64	141.25	832.52	-96.91	81.98	126.92	1.78	1.10	4.43
877.00	19.36	142.82	860.88	-104.61	87.98	136.68	2.94	2.40	5.23
907.00	20.17	143.14	889.12	-112.71	94.09	146.82	2.72	2.70	1.07
937.00	21.30	142.99	917.17	-121.20	100.48	157.43	3.77	3.77	-0.50
967.00	22.21	142.81	945.04	-130.06	107.18	168.54	3.04	3.03	-0.60
997.00	23.39	142.12	972.69	-139.28	114.27	180.16	4.03	3.93	-2.30
1,027.00	24.12	142.36	1,000.15	-148.84	121.67	192.24	2.45	2.43	0.80
1,057.00	24.81	141.73	1,027.46	-158.63	129.31	204.66	2.46	2.30	-2.10
1,087.00	25.87	141.33	1,054.57	-168.68	137.30	217.49	3.58	3.53	-1.33
1,117.00	26.47	141.72	1,081.49	-179.04	145.53	230.72	2.08	2.00	1.30
1,147.00	26.96	140.22	1,108.29	-189.52	154.02	244.21	2.78	1.63	-5.00
1,177.00	27.43	139.85	1,134.98	-200.02	162.83	257.92	1.66	1.57	-1.23
1,207.00	28.23	138.32	1,161.51	-210.61	172.00	271.92	3.57	2.67	-5.10
1,237.00	28.97	138.54	1,187.84	-221.35	181.53	286.27	2.49	2.47	0.73
1,267.00	29.41	137.98	1,214.04	-232.27	191.27	300.89	1.73	1.47	-1.87
1,297.00	30.04	138.35	1,240.09	-243.35	201.19	315.75	2.19	2.10	1.23
1,327.00	30.77	138.76	1,265.96	-254.73	211.24	330.92	2.53	2.43	1.37
1,357.00	31.15	139.13	1,291.69	-266.37	221.38	346.35	1.42	1.27	1.23
1,387.00	30.76	139.23	1,317.41	-278.05	231.46	361.78	1.31	-1.30	0.33
1,417.00	31.05	138.96	1,343.15	-289.69	241.55	377.18	1.07	0.97	-0.90
1,447.00	31.42	139.50	1,368.81	-301.47	251.71	392.73	1.55	1.23	1.80
1,477.00	32.34	140.01	1,394.28	-313.57	261.95	408.57	3.20	3.07	1.70
1,507.00	33.17	140.04	1,419.51	-326.01	272.38	424.80	2.77	2.77	0.10
1,537.00	33.19	140.21	1,444.62	-338.61	282.90	441.22	0.32	0.07	0.57
1,567.00	33.38	140.85	1,469.70	-351.32	293.37	457.69	1.33	0.63	2.13
1,597.00	33.35	141.63	1,494.75	-364.18	303.70	474.18	1.43	-0.10	2.60
1,627.00	32.47	142.77	1,519.94	-377.06	313.69	490.48	3.59	-2.93	3.80
1,657.00	31.74	141.52	1,545.35	-389.65	323.47	506.41	3.29	-2.43	-4.17
1,687.00	31.10	140.87	1,570.95	-401.84	333.27	522.05	2.41	-2.13	-2.17
1,717.00	30.90	140.74	1,596.67	-413.81	343.03	537.50	0.70	-0.67	-0.43
1,747.00	30.17	141.02	1,622.51	-425.64	352.65	552.74	2.48	-2.43	0.93
1,777.00	30.06	141.05	1,648.46	-437.34	362.12	567.79	0.37	-0.37	0.10
1,807.00	30.14	140.91	1,674.41	-449.03	371.59	582.84	0.35	0.27	-0.47
1,837.00	30.15	141.81	1,700.35	-460.80	381.00	597.90	1.51	0.03	3.00
1,867.00	30.10	141.65	1,726.30	-472.62	390.32	612.96	0.32	-0.17	-0.53
1,957.00	31.21	141.30	1,803.72	-508.51	418.91	658.84	1.25	1.23	-0.39
2,047.00	28.98	138.47	1,881.59	-543.04	447.95	703.95	2.94	-2.48	-3.14
2,137.00	27.16	140.02	1,961.00	-575.11	475.60	746.28	2.18	-2.02	1.72
2,227.00	28.24	140.57	2,040.69	-607.29	502.32	788.12	1.23	1.20	0.61
2,317.00	30.46	142.79	2,119.13	-641.91	529.65	832.21	2.75	2.47	2.47

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT NAD27
Site: NBU 1021-13A Pad
Well: NBU 1021-13H4AS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 1021-13H4AS
TVD Reference: GL 5261' & RKB 14' @ 5275.00ft (Ensign 145)
MD Reference: GL 5261' & RKB 14' @ 5275.00ft (Ensign 145)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Multi-User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
2,383.00	31.15	141.33	2,175.82	-668.56	550.43	866.00	1.54	1.05	-2.21
2,446.00	31.15	141.33	2,229.74	-694.01	570.79	898.58	0.00	0.00	0.00
Last Survey in 12 1/4" Hole									
2,522.00	29.55	138.95	2,295.32	-723.49	595.39	936.98	2.63	-2.11	-3.13
First SDI Production MWD Survey									
2,613.00	30.78	142.73	2,374.00	-758.95	624.23	982.68	2.49	1.35	4.15
2,703.00	32.62	143.08	2,450.57	-796.67	652.75	1,029.93	2.05	2.04	0.39
2,794.00	33.06	142.73	2,527.03	-836.03	682.51	1,079.24	0.53	0.48	-0.38
2,885.00	33.85	142.56	2,602.95	-875.91	712.95	1,129.37	0.87	0.87	-0.19
2,975.00	34.03	141.42	2,677.62	-915.50	743.89	1,179.60	0.73	0.20	-1.27
3,066.00	35.79	141.77	2,752.24	-956.31	776.24	1,231.67	1.95	1.93	0.38
3,156.00	36.58	142.21	2,824.88	-998.18	808.96	1,284.79	0.92	0.88	0.49
3,247.00	35.09	139.75	2,898.66	-1,039.57	842.48	1,338.05	2.28	-1.64	-2.70
3,337.00	32.54	138.69	2,973.43	-1,077.50	875.18	1,388.12	2.91	-2.83	-1.18
3,428.00	29.37	138.43	3,051.46	-1,112.59	906.15	1,434.89	3.49	-3.48	-0.29
3,518.00	27.35	136.23	3,130.65	-1,144.04	935.10	1,477.57	2.53	-2.24	-2.44
3,609.00	25.06	136.93	3,212.30	-1,173.21	962.72	1,517.65	2.54	-2.52	0.77
3,699.00	23.57	141.33	3,294.32	-1,201.19	986.99	1,554.67	2.61	-1.66	4.89
3,790.00	22.51	140.01	3,378.06	-1,228.74	1,009.55	1,590.28	1.30	-1.16	-1.45
3,880.00	20.84	136.76	3,461.69	-1,253.61	1,031.59	1,623.49	2.28	-1.86	-3.61
3,971.00	18.73	139.31	3,547.32	-1,276.48	1,052.21	1,654.25	2.50	-2.32	2.80
4,061.00	15.83	140.54	3,633.25	-1,296.92	1,069.43	1,680.98	3.25	-3.22	1.37
4,152.00	15.65	142.21	3,720.84	-1,316.20	1,084.84	1,705.66	0.54	-0.20	1.84
4,243.00	13.37	140.01	3,808.93	-1,333.97	1,099.13	1,728.45	2.58	-2.51	-2.42
4,333.00	11.87	140.71	3,896.75	-1,349.10	1,111.68	1,748.11	1.68	-1.67	0.78
4,424.00	10.02	135.70	3,986.09	-1,362.01	1,123.13	1,765.36	2.28	-2.03	-5.51
4,514.00	8.09	133.15	4,074.97	-1,371.95	1,133.22	1,779.45	2.19	-2.14	-2.83
4,605.00	7.74	132.27	4,165.10	-1,380.45	1,142.43	1,791.86	0.41	-0.38	-0.97
4,696.00	6.16	132.45	4,255.43	-1,387.87	1,150.57	1,802.76	1.74	-1.74	0.20
4,786.00	4.84	134.91	4,345.01	-1,393.81	1,156.82	1,811.32	1.49	-1.47	2.73
4,877.00	4.13	139.66	4,435.74	-1,399.02	1,161.66	1,818.41	0.88	-0.78	5.22
4,967.00	2.90	161.98	4,525.57	-1,403.65	1,164.46	1,823.77	2.02	-1.37	24.80
5,058.00	1.67	116.81	4,616.50	-1,406.44	1,166.36	1,827.13	2.30	-1.35	-49.64
5,148.00	1.85	347.52	4,706.48	-1,405.61	1,167.22	1,827.04	3.54	0.20	-143.66
5,239.00	1.23	348.05	4,797.45	-1,403.22	1,166.70	1,824.86	0.68	-0.68	0.58
5,329.00	0.97	350.86	4,887.43	-1,401.52	1,166.37	1,823.35	0.29	-0.29	3.12
5,420.00	0.97	341.81	4,978.42	-1,400.03	1,166.01	1,821.96	0.17	0.00	-9.95
5,510.00	0.62	344.97	5,068.41	-1,398.84	1,165.65	1,820.81	0.39	-0.39	3.51
5,601.00	0.26	327.13	5,159.41	-1,398.19	1,165.41	1,820.16	0.42	-0.40	-19.60
5,691.00	1.23	307.44	5,249.40	-1,397.43	1,164.53	1,819.01	1.10	1.08	-21.88
5,782.00	1.23	291.88	5,340.38	-1,396.47	1,162.85	1,817.20	0.37	0.00	-17.10
5,872.00	1.23	288.54	5,430.36	-1,395.81	1,161.04	1,815.54	0.08	0.00	-3.71
5,963.00	0.97	281.42	5,521.34	-1,395.34	1,159.35	1,814.11	0.32	-0.29	-7.82
6,054.00	0.88	264.64	5,612.33	-1,395.26	1,157.90	1,813.12	0.31	-0.10	-18.44
6,144.00	0.79	309.99	5,702.32	-1,394.92	1,156.74	1,812.13	0.72	-0.10	50.39
6,235.00	0.53	280.46	5,793.31	-1,394.44	1,155.85	1,811.19	0.46	-0.29	-32.45
6,325.00	0.26	218.67	5,883.31	-1,394.53	1,155.31	1,810.91	0.52	-0.30	-68.66
6,416.00	1.14	303.31	5,974.31	-1,394.19	1,154.42	1,810.09	1.26	0.97	93.01
6,506.00	0.88	288.81	6,064.29	-1,393.47	1,153.02	1,808.65	0.40	-0.29	-16.11
6,597.00	0.79	271.84	6,155.28	-1,393.23	1,151.73	1,807.64	0.29	-0.10	-18.65
6,687.00	0.70	242.40	6,245.27	-1,393.46	1,150.63	1,807.12	0.43	-0.10	-32.71
6,778.00	0.97	272.20	6,336.27	-1,393.69	1,149.36	1,806.49	0.55	0.30	32.75
6,869.00	0.79	277.12	6,427.25	-1,393.58	1,147.97	1,805.52	0.21	-0.20	5.41
6,959.00	0.79	254.53	6,517.25	-1,393.67	1,146.76	1,804.82	0.34	0.00	-25.10

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT NAD27
Site: NBU 1021-13A Pad
Well: NBU 1021-13H4AS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 1021-13H4AS
TVD Reference: GL 5261' & RKB 14' @ 5275.00ft (Ensign 145)
MD Reference: GL 5261' & RKB 14' @ 5275.00ft (Ensign 145)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Multi-User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
7,050.00	0.79	233.26	6,608.24	-1,394.22	1,145.65	1,804.54	0.32	0.00	-23.37
7,140.00	0.97	283.01	6,698.23	-1,394.42	1,144.41	1,803.90	0.84	0.20	55.28
7,231.00	0.79	280.37	6,789.22	-1,394.13	1,143.04	1,802.81	0.20	-0.20	-2.90
7,322.00	0.53	257.78	6,880.21	-1,394.11	1,142.01	1,802.14	0.40	-0.29	-24.82
7,412.00	1.06	337.24	6,970.20	-1,393.43	1,141.29	1,801.15	1.22	0.59	88.29
7,503.00	1.06	333.90	7,061.19	-1,391.89	1,140.59	1,799.53	0.07	0.00	-3.67
7,593.00	0.62	341.98	7,151.18	-1,390.68	1,140.07	1,798.27	0.51	-0.49	8.98
7,684.00	0.53	317.28	7,242.17	-1,389.91	1,139.63	1,797.39	0.29	-0.10	-27.14
7,774.00	0.35	272.46	7,332.17	-1,389.59	1,139.08	1,796.79	0.42	-0.20	-49.80
7,865.00	0.62	229.48	7,423.17	-1,389.90	1,138.43	1,796.61	0.48	0.30	-47.23
7,956.00	0.35	191.69	7,514.17	-1,390.49	1,138.00	1,796.79	0.44	-0.30	-41.53
8,046.00	0.70	158.82	7,604.16	-1,391.27	1,138.14	1,797.49	0.50	0.39	-36.52
8,137.00	1.06	142.21	7,695.15	-1,392.45	1,138.85	1,798.86	0.48	0.40	-18.25
8,227.00	1.41	133.07	7,785.13	-1,393.87	1,140.17	1,800.79	0.45	0.39	-10.16
8,318.00	1.67	114.43	7,876.10	-1,395.18	1,142.20	1,803.09	0.62	0.29	-20.48
8,409.00	1.85	119.18	7,967.06	-1,396.45	1,144.69	1,805.65	0.25	0.20	5.22
8,499.00	1.85	90.79	8,057.01	-1,397.17	1,147.41	1,807.94	1.01	0.00	-31.54

Last SDI Production MWD Survey

9,650.00 1.85 90.79 9,207.41 -1,397.69 1,184.56 1,831.94 0.00 0.00 0.00

Projection To TD
Targets
Target Name

- hit/miss target
 - Shape

Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
0.00	0.00	9,202.00	-1,403.20	1,153.79	595,161.52	2,563,407.64	39° 56' 59.981 N	109° 29' 24.540 W

- actual wellpath misses target center by 31.08ft at 9643.60ft MD (9201.02 TVD, -1397.68 N, 1184.36 E)
 - Circle (radius 25.00)

Checked By: _____ Approved By: _____ Date: _____



Scientific Drilling
Rocky Mountain Operations

Kerr McGee Oil and Gas Onshore LP

Uintah County, UT NAD27
NBU 1021-13A Pad
NBU 1021-13H4AS
OH

Design: OH

Survey Report - Geographic

07 February, 2010



Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT NAD27
Site: NBU 1021-13A Pad
Well: NBU 1021-13H4AS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 1021-13H4AS
TVD Reference: GL 5261' & RKB 14' @ 5275.00ft (Ensign 145)
MD Reference: GL 5261' & RKB 14' @ 5275.00ft (Ensign 145)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Multi-User Db

Project	Uintah County, UT NAD27		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Utah Central 4302		

Site	NBU 1021-13A Pad, Sec 1 T10S R21E		
Site Position:		Northing:	596,538.51 ft
From:	Lat/Long	Easting:	2,562,222.69 ft
Position Uncertainty:	0.00 ft	Slot Radius:	in
		Latitude:	39° 57' 13.850 N
		Longitude:	109° 29' 39.356 W
		Grid Convergence:	1.28 °

Well	NBU 1021-13H4AS, 652' FNL 1287' FEL		
Well Position	+N/-S	0.00 ft	Northing: 596,538.49 ft
	+E/-W	0.00 ft	Easting: 2,562,222.69 ft
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft
		Latitude:	39° 57' 13.850 N
		Longitude:	109° 29' 39.356 W
		Ground Level:	5,261.00 ft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF2010	11/6/2009	11.27
			Dip Angle (°)
			65.87
			Field Strength (nT)
			52,461

Design	OH		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)
	10.00	0.00	0.00
			Direction (°)
			140.56

Survey Program	Date	2/7/2010		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
107.00	2,446.00	Survey #1 - Surface (OH)	MWD SDI	MWD - Standard ver 1.0.1
2,522.00	9,650.00	Survey #2 - Production (OH)	MWD SDI	MWD - Standard ver 1.0.1

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Wellbore: OH
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MD Reference: GL 5261' & RKB 14' @ 5275.00ft (Ensign 145)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Multi-User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
10.00	0.00	0.00	10.00	0.00	0.00	596,538.49	2,562,222.69	39° 57' 13.850 N	109° 29' 39.356 W
107.00	0.46	91.47	107.00	-0.01	0.39	596,538.49	2,562,223.08	39° 57' 13.850 N	109° 29' 39.351 W
136.00	0.33	110.38	136.00	-0.04	0.58	596,538.46	2,562,223.27	39° 57' 13.849 N	109° 29' 39.349 W
165.00	1.20	120.23	165.00	-0.22	0.92	596,538.29	2,562,223.61	39° 57' 13.848 N	109° 29' 39.344 W
195.00	2.53	132.86	194.98	-0.83	1.68	596,537.70	2,562,224.39	39° 57' 13.842 N	109° 29' 39.334 W
224.00	3.59	138.09	223.94	-1.94	2.76	596,536.61	2,562,225.49	39° 57' 13.831 N	109° 29' 39.321 W
253.00	4.75	139.00	252.86	-3.53	4.15	596,535.06	2,562,226.91	39° 57' 13.815 N	109° 29' 39.303 W
282.00	5.70	141.11	281.74	-5.55	5.84	596,533.07	2,562,228.65	39° 57' 13.795 N	109° 29' 39.281 W
311.00	5.82	142.35	310.59	-7.84	7.65	596,530.83	2,562,230.51	39° 57' 13.772 N	109° 29' 39.258 W
341.00	5.80	142.95	340.44	-10.25	9.49	596,528.46	2,562,232.40	39° 57' 13.748 N	109° 29' 39.234 W
370.00	6.57	143.45	369.27	-12.75	11.36	596,526.00	2,562,234.33	39° 57' 13.724 N	109° 29' 39.210 W
399.00	7.42	143.99	398.05	-15.60	13.45	596,523.20	2,562,236.48	39° 57' 13.696 N	109° 29' 39.183 W
428.00	8.40	142.78	426.78	-18.80	15.83	596,520.05	2,562,238.93	39° 57' 13.664 N	109° 29' 39.153 W
457.00	9.67	142.72	455.42	-22.43	18.59	596,516.49	2,562,241.77	39° 57' 13.628 N	109° 29' 39.117 W
487.00	10.44	142.66	484.96	-26.59	21.76	596,512.39	2,562,245.04	39° 57' 13.587 N	109° 29' 39.077 W
517.00	11.33	141.02	514.42	-31.05	25.26	596,508.02	2,562,248.64	39° 57' 13.543 N	109° 29' 39.032 W
547.00	12.05	139.93	543.79	-35.73	29.13	596,503.42	2,562,252.61	39° 57' 13.497 N	109° 29' 38.982 W
577.00	12.74	139.59	573.09	-40.65	33.29	596,498.60	2,562,256.88	39° 57' 13.448 N	109° 29' 38.928 W
607.00	13.69	139.35	602.30	-45.86	37.75	596,493.49	2,562,261.46	39° 57' 13.397 N	109° 29' 38.871 W
637.00	14.41	137.99	631.40	-51.33	42.56	596,488.13	2,562,266.39	39° 57' 13.342 N	109° 29' 38.809 W
667.00	15.39	138.12	660.39	-57.07	47.72	596,482.51	2,562,271.67	39° 57' 13.286 N	109° 29' 38.743 W
697.00	15.66	138.99	689.30	-63.08	53.03	596,476.61	2,562,277.12	39° 57' 13.226 N	109° 29' 38.675 W
727.00	16.26	139.14	718.14	-69.32	58.44	596,470.50	2,562,282.66	39° 57' 13.165 N	109° 29' 38.606 W
757.00	17.00	139.32	746.89	-75.82	64.04	596,464.13	2,562,288.41	39° 57' 13.100 N	109° 29' 38.534 W
787.00	17.62	138.58	775.53	-82.55	69.91	596,457.53	2,562,294.42	39° 57' 13.034 N	109° 29' 38.458 W
817.00	18.31	139.92	804.07	-89.56	75.94	596,450.66	2,562,300.62	39° 57' 12.965 N	109° 29' 38.381 W
847.00	18.64	141.25	832.52	-96.91	81.98	596,443.45	2,562,306.82	39° 57' 12.892 N	109° 29' 38.303 W
877.00	19.36	142.82	860.88	-104.61	87.98	596,435.89	2,562,312.99	39° 57' 12.816 N	109° 29' 38.226 W
907.00	20.17	143.14	889.12	-112.71	94.09	596,427.92	2,562,319.28	39° 57' 12.736 N	109° 29' 38.148 W
937.00	21.30	142.99	917.17	-121.20	100.48	596,419.58	2,562,325.85	39° 57' 12.652 N	109° 29' 38.066 W
967.00	22.21	142.81	945.04	-130.06	107.18	596,410.86	2,562,332.76	39° 57' 12.564 N	109° 29' 37.980 W
997.00	23.39	142.12	972.69	-139.28	114.27	596,401.81	2,562,340.05	39° 57' 12.473 N	109° 29' 37.889 W
1,027.00	24.12	142.36	1,000.15	-148.84	121.67	596,392.42	2,562,347.66	39° 57' 12.379 N	109° 29' 37.794 W
1,057.00	24.81	141.73	1,027.46	-158.63	129.31	596,382.80	2,562,355.52	39° 57' 12.282 N	109° 29' 37.695 W
1,087.00	25.87	141.33	1,054.57	-168.68	137.30	596,372.93	2,562,363.73	39° 57' 12.183 N	109° 29' 37.593 W
1,117.00	26.47	141.72	1,081.49	-179.04	145.53	596,362.76	2,562,372.19	39° 57' 12.080 N	109° 29' 37.487 W
1,147.00	26.96	140.22	1,108.29	-189.52	154.02	596,352.48	2,562,380.92	39° 57' 11.977 N	109° 29' 37.378 W
1,177.00	27.43	139.85	1,134.98	-200.02	162.83	596,342.17	2,562,389.96	39° 57' 11.873 N	109° 29' 37.265 W
1,207.00	28.23	138.32	1,161.51	-210.61	172.00	596,331.80	2,562,399.37	39° 57' 11.768 N	109° 29' 37.147 W
1,237.00	28.97	138.54	1,187.84	-221.35	181.53	596,321.27	2,562,409.13	39° 57' 11.662 N	109° 29' 37.025 W
1,267.00	29.41	137.98	1,214.04	-232.27	191.27	596,310.57	2,562,419.12	39° 57' 11.554 N	109° 29' 36.900 W
1,297.00	30.04	138.35	1,240.09	-243.35	201.19	596,299.71	2,562,429.28	39° 57' 11.445 N	109° 29' 36.772 W
1,327.00	30.77	138.76	1,265.96	-254.73	211.24	596,288.56	2,562,439.59	39° 57' 11.332 N	109° 29' 36.643 W
1,357.00	31.15	139.13	1,291.69	-266.37	221.38	596,277.15	2,562,449.98	39° 57' 11.217 N	109° 29' 36.513 W
1,387.00	30.76	139.23	1,317.41	-278.05	231.46	596,265.71	2,562,460.33	39° 57' 11.102 N	109° 29' 36.384 W
1,417.00	31.05	138.96	1,343.15	-289.69	241.55	596,254.29	2,562,470.67	39° 57' 10.987 N	109° 29' 36.254 W
1,447.00	31.42	139.50	1,368.81	-301.47	251.71	596,242.74	2,562,481.09	39° 57' 10.870 N	109° 29' 36.124 W
1,477.00	32.34	140.01	1,394.28	-313.57	261.95	596,230.88	2,562,491.60	39° 57' 10.751 N	109° 29' 35.992 W
1,507.00	33.17	140.04	1,419.51	-326.01	272.38	596,218.68	2,562,502.30	39° 57' 10.628 N	109° 29' 35.858 W
1,537.00	33.19	140.21	1,444.62	-338.61	282.90	596,206.31	2,562,513.11	39° 57' 10.503 N	109° 29' 35.723 W
1,567.00	33.38	140.85	1,469.70	-351.32	293.37	596,193.84	2,562,523.86	39° 57' 10.378 N	109° 29' 35.589 W
1,597.00	33.35	141.63	1,494.75	-364.18	303.70	596,181.21	2,562,534.47	39° 57' 10.250 N	109° 29' 35.456 W
1,627.00	32.47	142.77	1,519.94	-377.06	313.69	596,168.56	2,562,544.75	39° 57' 10.123 N	109° 29' 35.328 W
1,657.00	31.74	141.52	1,545.35	-389.65	323.47	596,156.20	2,562,554.81	39° 57' 9.999 N	109° 29' 35.202 W
1,687.00	31.10	140.87	1,570.95	-401.84	333.27	596,144.23	2,562,564.88	39° 57' 9.878 N	109° 29' 35.076 W

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MD Reference: GL 5261' & RKB 14' @ 5275.00ft (Ensign 145)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Multi-User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
1,717.00	30.90	140.74	1,596.67	-413.81	343.03	596,132.48	2,562,574.91	39° 57' 9.760 N	109° 29' 34.951 W
1,747.00	30.17	141.02	1,622.51	-425.64	352.65	596,120.87	2,562,584.79	39° 57' 9.643 N	109° 29' 34.827 W
1,777.00	30.06	141.05	1,648.46	-437.34	362.12	596,109.38	2,562,594.52	39° 57' 9.527 N	109° 29' 34.706 W
1,807.00	30.14	140.91	1,674.41	-449.03	371.59	596,097.91	2,562,604.25	39° 57' 9.412 N	109° 29' 34.584 W
1,837.00	30.15	141.81	1,700.35	-460.80	381.00	596,086.36	2,562,613.92	39° 57' 9.295 N	109° 29' 34.463 W
1,867.00	30.10	141.65	1,726.30	-472.62	390.32	596,074.75	2,562,623.51	39° 57' 9.179 N	109° 29' 34.344 W
1,957.00	31.21	141.30	1,803.72	-508.51	418.91	596,039.50	2,562,652.89	39° 57' 8.824 N	109° 29' 33.977 W
2,047.00	28.98	138.47	1,881.59	-543.04	447.95	596,005.63	2,562,682.69	39° 57' 8.483 N	109° 29' 33.604 W
2,137.00	27.16	140.02	1,961.00	-575.11	475.60	595,974.20	2,562,711.06	39° 57' 8.166 N	109° 29' 33.248 W
2,227.00	28.24	140.57	2,040.69	-607.29	502.32	595,942.62	2,562,738.50	39° 57' 7.848 N	109° 29' 32.905 W
2,317.00	30.46	142.79	2,119.13	-641.91	529.65	595,908.62	2,562,766.59	39° 57' 7.505 N	109° 29' 32.554 W
2,383.00	31.15	141.33	2,175.82	-668.56	550.43	595,882.44	2,562,787.97	39° 57' 7.242 N	109° 29' 32.288 W
2,446.00	31.15	141.33	2,229.74	-694.01	570.79	595,857.46	2,562,808.90	39° 57' 6.990 N	109° 29' 32.026 W
Last Survey in 12 1/4" Hole									
2,522.00	29.55	138.95	2,295.32	-723.49	595.39	595,828.53	2,562,834.14	39° 57' 6.699 N	109° 29' 31.710 W
First SDI Production MWD Survey									
2,613.00	30.78	142.73	2,374.00	-758.95	624.23	595,793.73	2,562,863.77	39° 57' 6.349 N	109° 29' 31.340 W
2,703.00	32.62	143.08	2,450.57	-796.67	652.75	595,756.66	2,562,893.13	39° 57' 5.976 N	109° 29' 30.974 W
2,794.00	33.06	142.73	2,527.03	-836.03	682.51	595,717.98	2,562,923.77	39° 57' 5.587 N	109° 29' 30.592 W
2,885.00	33.85	142.56	2,602.95	-875.91	712.95	595,678.79	2,562,955.09	39° 57' 5.193 N	109° 29' 30.201 W
2,975.00	34.03	141.42	2,677.62	-915.50	743.89	595,639.91	2,562,986.92	39° 57' 4.801 N	109° 29' 29.803 W
3,066.00	35.79	141.77	2,752.24	-956.31	776.24	595,599.83	2,563,020.17	39° 57' 4.398 N	109° 29' 29.388 W
3,156.00	36.58	142.21	2,824.88	-998.18	808.96	595,558.71	2,563,053.82	39° 57' 3.984 N	109° 29' 28.968 W
3,247.00	35.09	139.75	2,898.66	-1,039.57	842.48	595,518.07	2,563,088.26	39° 57' 3.575 N	109° 29' 28.537 W
3,337.00	32.54	138.69	2,973.43	-1,077.50	875.18	595,480.89	2,563,121.80	39° 57' 3.200 N	109° 29' 28.118 W
3,428.00	29.37	138.43	3,051.46	-1,112.59	906.15	595,446.50	2,563,153.55	39° 57' 2.853 N	109° 29' 27.720 W
3,518.00	27.35	136.23	3,130.65	-1,144.04	935.10	595,415.71	2,563,183.20	39° 57' 2.542 N	109° 29' 27.348 W
3,609.00	25.06	136.93	3,212.30	-1,173.21	962.72	595,387.16	2,563,211.47	39° 57' 2.254 N	109° 29' 26.993 W
3,699.00	23.57	141.33	3,294.32	-1,201.19	986.99	595,359.74	2,563,236.36	39° 57' 1.978 N	109° 29' 26.682 W
3,790.00	22.51	140.01	3,378.06	-1,228.74	1,009.55	595,332.70	2,563,259.53	39° 57' 1.705 N	109° 29' 26.392 W
3,880.00	20.84	136.76	3,461.69	-1,253.61	1,031.59	595,308.33	2,563,282.12	39° 57' 1.459 N	109° 29' 26.109 W
3,971.00	18.73	139.31	3,547.32	-1,276.48	1,052.21	595,285.93	2,563,303.25	39° 57' 1.233 N	109° 29' 25.844 W
4,061.00	15.83	140.54	3,633.25	-1,296.92	1,069.43	595,265.88	2,563,320.93	39° 57' 1.031 N	109° 29' 25.623 W
4,152.00	15.65	142.21	3,720.84	-1,316.20	1,084.84	595,246.95	2,563,336.77	39° 57' 0.841 N	109° 29' 25.425 W
4,243.00	13.37	140.01	3,808.93	-1,333.97	1,099.13	595,229.51	2,563,351.45	39° 57' 0.665 N	109° 29' 25.242 W
4,333.00	11.87	140.71	3,896.75	-1,349.10	1,111.68	595,214.66	2,563,364.33	39° 57' 0.516 N	109° 29' 25.081 W
4,424.00	10.02	135.70	3,986.09	-1,362.01	1,123.13	595,202.01	2,563,376.08	39° 57' 0.388 N	109° 29' 24.934 W
4,514.00	8.09	133.15	4,074.97	-1,371.95	1,133.22	595,192.30	2,563,386.39	39° 57' 0.290 N	109° 29' 24.804 W
4,605.00	7.74	132.27	4,165.10	-1,380.45	1,142.43	595,184.01	2,563,395.78	39° 57' 0.206 N	109° 29' 24.686 W
4,696.00	6.16	132.45	4,255.43	-1,387.87	1,150.57	595,176.78	2,563,404.08	39° 57' 0.132 N	109° 29' 24.581 W
4,786.00	4.84	134.91	4,345.01	-1,393.81	1,156.82	595,170.98	2,563,410.47	39° 57' 0.074 N	109° 29' 24.501 W
4,877.00	4.13	139.66	4,435.74	-1,399.02	1,161.66	595,165.88	2,563,415.42	39° 57' 0.022 N	109° 29' 24.439 W
4,967.00	2.90	161.98	4,525.57	-1,403.65	1,164.46	595,161.31	2,563,418.33	39° 56' 59.976 N	109° 29' 24.403 W
5,058.00	1.67	116.81	4,616.50	-1,406.44	1,166.36	595,158.56	2,563,420.28	39° 56' 59.949 N	109° 29' 24.379 W
5,148.00	1.85	347.52	4,706.48	-1,405.61	1,167.22	595,159.41	2,563,421.12	39° 56' 59.957 N	109° 29' 24.368 W
5,239.00	1.23	348.05	4,797.45	-1,403.22	1,166.70	595,161.79	2,563,420.55	39° 56' 59.981 N	109° 29' 24.374 W
5,329.00	0.97	350.86	4,887.43	-1,401.52	1,166.37	595,163.48	2,563,420.19	39° 56' 59.997 N	109° 29' 24.378 W
5,420.00	0.97	341.81	4,978.42	-1,400.03	1,166.01	595,164.96	2,563,419.79	39° 57' 0.012 N	109° 29' 24.383 W
5,510.00	0.62	344.97	5,068.41	-1,398.84	1,165.65	595,166.15	2,563,419.40	39° 57' 0.024 N	109° 29' 24.388 W
5,601.00	0.26	327.13	5,159.41	-1,398.19	1,165.41	595,166.79	2,563,419.15	39° 57' 0.030 N	109° 29' 24.391 W
5,691.00	1.23	307.44	5,249.40	-1,397.43	1,164.53	595,167.53	2,563,418.25	39° 57' 0.038 N	109° 29' 24.402 W
5,782.00	1.23	291.88	5,340.38	-1,396.47	1,162.85	595,168.45	2,563,416.55	39° 57' 0.047 N	109° 29' 24.424 W
5,872.00	1.23	288.54	5,430.36	-1,395.81	1,161.04	595,169.07	2,563,414.72	39° 57' 0.054 N	109° 29' 24.447 W
5,963.00	0.97	281.42	5,521.34	-1,395.34	1,159.35	595,169.50	2,563,413.03	39° 57' 0.059 N	109° 29' 24.468 W
6,054.00	0.88	264.64	5,612.33	-1,395.26	1,157.90	595,169.55	2,563,411.58	39° 57' 0.059 N	109° 29' 24.487 W

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT NAD27
Site: NBU 1021-13A Pad
Well: NBU 1021-13H4AS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 1021-13H4AS
TVD Reference: GL 5261' & RKB 14' @ 5275.00ft (Ensign 145)
MD Reference: GL 5261' & RKB 14' @ 5275.00ft (Ensign 145)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Multi-User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
6,144.00	0.79	309.99	5,702.32	-1,394.92	1,156.74	595,169.86	2,563,410.41	39° 57' 0.063 N	109° 29' 24.502 W
6,235.00	0.53	280.46	5,793.31	-1,394.44	1,155.85	595,170.32	2,563,409.51	39° 57' 0.067 N	109° 29' 24.514 W
6,325.00	0.26	218.67	5,883.31	-1,394.53	1,155.31	595,170.23	2,563,408.97	39° 57' 0.067 N	109° 29' 24.520 W
6,416.00	1.14	303.31	5,974.31	-1,394.19	1,154.42	595,170.54	2,563,408.08	39° 57' 0.070 N	109° 29' 24.532 W
6,506.00	0.88	288.81	6,064.29	-1,393.47	1,153.02	595,171.22	2,563,406.66	39° 57' 0.077 N	109° 29' 24.550 W
6,597.00	0.79	271.84	6,155.28	-1,393.23	1,151.73	595,171.44	2,563,405.37	39° 57' 0.079 N	109° 29' 24.566 W
6,687.00	0.70	242.40	6,245.27	-1,393.46	1,150.63	595,171.18	2,563,404.26	39° 57' 0.077 N	109° 29' 24.581 W
6,778.00	0.97	272.20	6,336.27	-1,393.69	1,149.36	595,170.92	2,563,403.01	39° 57' 0.075 N	109° 29' 24.597 W
6,869.00	0.79	277.12	6,427.25	-1,393.58	1,147.97	595,171.00	2,563,401.61	39° 57' 0.076 N	109° 29' 24.615 W
6,959.00	0.79	254.53	6,517.25	-1,393.67	1,146.76	595,170.88	2,563,400.40	39° 57' 0.075 N	109° 29' 24.630 W
7,050.00	0.79	233.26	6,608.24	-1,394.22	1,145.65	595,170.32	2,563,399.31	39° 57' 0.070 N	109° 29' 24.644 W
7,140.00	0.97	283.01	6,698.23	-1,394.42	1,144.41	595,170.09	2,563,398.07	39° 57' 0.068 N	109° 29' 24.660 W
7,231.00	0.79	280.37	6,789.22	-1,394.13	1,143.04	595,170.35	2,563,396.70	39° 57' 0.071 N	109° 29' 24.678 W
7,322.00	0.53	257.78	6,880.21	-1,394.11	1,142.01	595,170.35	2,563,395.67	39° 57' 0.071 N	109° 29' 24.691 W
7,412.00	1.06	337.24	6,970.20	-1,393.43	1,141.29	595,171.01	2,563,394.93	39° 57' 0.078 N	109° 29' 24.701 W
7,503.00	1.06	333.90	7,061.19	-1,391.89	1,140.59	595,172.53	2,563,394.20	39° 57' 0.093 N	109° 29' 24.709 W
7,593.00	0.62	341.98	7,151.18	-1,390.68	1,140.07	595,173.72	2,563,393.65	39° 57' 0.105 N	109° 29' 24.716 W
7,684.00	0.53	317.28	7,242.17	-1,389.91	1,139.63	595,174.49	2,563,393.20	39° 57' 0.112 N	109° 29' 24.722 W
7,774.00	0.35	272.46	7,332.17	-1,389.59	1,139.08	595,174.80	2,563,392.63	39° 57' 0.115 N	109° 29' 24.729 W
7,865.00	0.62	229.48	7,423.17	-1,389.90	1,138.43	595,174.47	2,563,391.99	39° 57' 0.112 N	109° 29' 24.737 W
7,956.00	0.35	191.69	7,514.17	-1,390.49	1,138.00	595,173.87	2,563,391.57	39° 57' 0.107 N	109° 29' 24.743 W
8,046.00	0.70	158.82	7,604.16	-1,391.27	1,138.14	595,173.09	2,563,391.73	39° 57' 0.099 N	109° 29' 24.741 W
8,137.00	1.06	142.21	7,695.15	-1,392.45	1,138.85	595,171.93	2,563,392.47	39° 57' 0.087 N	109° 29' 24.732 W
8,227.00	1.41	133.07	7,785.13	-1,393.87	1,140.17	595,170.54	2,563,393.82	39° 57' 0.073 N	109° 29' 24.715 W
8,318.00	1.67	114.43	7,876.10	-1,395.18	1,142.20	595,169.28	2,563,395.88	39° 57' 0.060 N	109° 29' 24.689 W
8,409.00	1.85	119.18	7,967.06	-1,396.45	1,144.69	595,168.07	2,563,398.40	39° 57' 0.048 N	109° 29' 24.657 W
8,499.00	1.85	90.79	8,057.01	-1,397.17	1,147.41	595,167.40	2,563,401.13	39° 57' 0.040 N	109° 29' 24.622 W
Last SDI Production MWD Survey									
9,650.00	1.85	90.79	9,207.41	-1,397.69	1,184.56	595,167.72	2,563,438.29	39° 57' 0.035 N	109° 29' 24.145 W
Projection To TD									

Targets
Target Name

- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- Shape									
NBU 1021-13H4AS PBH	0.00	0.00	9,202.00	-1,403.20	1,153.79	595,161.52	2,563,407.64	39° 56' 59.981 N	109° 29' 24.540 W
- actual wellpath misses target center by 31.08ft at 9643.60ft MD (9201.02 TVD, -1397.68 N, 1184.36 E)									
- Circle (radius 25.00)									

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
2,446.00	2,229.74	-694.01	570.79	Last Survey in 12 1/4" Hole
2,522.00	2,295.32	-723.49	595.39	First SDI Production MWD Survey
8,499.00	8,057.01	-1,397.17	1,147.41	Last SDI Production MWD Survey
9,650.00	9,207.41	-1,397.69	1,184.56	Projection To TD

Checked By: _____ Approved By: _____ Date: _____

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT NAD27
Site: NBU 1021-13A Pad
Well: NBU 1021-13H4AS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 1021-13H4AS
TVD Reference: GL 5261' & RKB 14' @ 5275.00ft (Ensign 145)
MD Reference: GL 5261' & RKB 14' @ 5275.00ft (Ensign 145)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Multi-User Db

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: ML 23608
1. TYPE OF WELL Gas Well		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		8. WELL NAME and NUMBER: NBU 1021-13H4AS
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0652 FNL 1287 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENE Section: 13 Township: 10.0S Range: 21.0E Meridian: S		9. API NUMBER: 43047503400000
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		9. FIELD and POOL or WILDCAT: NATURAL BUTTES
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 4/11/2011 <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	<div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION </div> <div style="width: 50%;"> <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input checked="" type="checkbox"/> OTHER </div> <div style="width: 50%;"> <input checked="" type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION </div> </div>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. The operator requests approval to conduct wellhead/casing repair operations on the subject well location. Please find the attached procedure for the proposed repair work on the subject well location.		
Approved by the Utah Division of Oil, Gas and Mining Date: 04/13/2011 By: <u>Dan K. Quist</u>		
NAME (PLEASE PRINT) Andy Lytle		PHONE NUMBER 720 929-6100
SIGNATURE N/A		TITLE Regulatory Analyst
DATE 4/11/2011		

WORKORDER # 88119380

Name: NBU 1021-13H4AS - 1021-13A PAD
Surface Location: NENE Sec. 13, T10S, R21E
 Uintah County, UT

3/30/11

API: 4304750340 **LEASE#:** ML-23608

ELEVATIONS: 5262' GL 5275' KB

TOTAL DEPTH: 9650' **PBTD:** 9576'

SURFACE CASING: 9 5/8", 40# J-55 ST&C @ 2420'

PRODUCTION CASING: 4 1/2", 11.6#, I-80 LT&C @ 9620'
 T.O.C.@ ~150 per CBL

PERFORATIONS: Wasatch 6273' - 7312'
 Mesaverde 7744' - 9267'

Tubular/Borehole	Drift inches	Collapse psi	Burst psi	Capacities		
				Gal./ft.	Cuft/ft.	Bbl./ft.
2.375" 4.7# J-55 tbq.	1.901	8100	7700	0.1624	0.02171	0.00387
4.5" 11.6# I-80	3.875	6350	7780	0.6528	0.0872	0.0155
9.625" 40# J-55	8.679	2570	3950	3.1847	0.4257	0.0758
Annular Capacities						
2.375" tbq. X 4 1/2" 11.6# csg				0.4227	0.0565	0.01

GEOLOGICAL TOPS:

1364' Green River
 1708' Bird's Nest
 2187' Mahogany
 4851' Wasatch
 7484' Mesaverde

NBU 1021-13H4AS – WELLHEAD REPLACEMENT PROCEDURE -

PREP-WORK PRIOR TO MIRU:

1. Dig out down to the 2" surface casing valve or to the valve on the riser off the surface casing.
2. Install a tee with 2 valves, with a pressure gauge and sensor on one valve.
3. Open casing valve and record pressures.
4. Install nipple and steel hose on the other valve, the relief valve,. Do not use hammer unions. No impact equipment or tools to be used for any of this installation. Extend hose and hard piping to a downwind location at least 100' from the wellhead. Consider installing a manifold so that vent area could be in two locations approx. 90 degrees apart from the wellhead.
5. Open the relief valve and blow well down to the atmosphere.
6. Make a determination of amount of gas flow, either by installation of a choke nipple, bucket test or other.
7. Shut well in. Observe for rate of build-up by utilizing sensor data. Do not build-up for more than 24 hours. Vent gas through the vent line and leave open to the atmosphere.

WORKOVER PROCEDURE:

1. MIRU workover rig.
2. Kill well with 10# brine / KCL (dictated by well pressure).
3. Remove tree, install double BOP with blind and 2 3/8" pipe rams, with accumulator closing unit and manual back-ups. Function test BOP system.
4. POOH w/ tubing laying down extra tubing.
5. Rig up wireline service. RIH and set CBP @ ~6223'. Dump bail 4 sx cement on top of plug. POOH and RD wireline service. TIH w/ tubing and seating nipple. Land tubing ±60' above cement. RDMO.
6. Monitor well pressures. If surface casing is dead. MIRU. ND WH and NU BOP. POOH w/ tubing.
7. Depending on conditions at wellsite, continue with either CUT/PATCH Procedure or BACK-OFF Procedure.

CUT/PATCH PROCEDURE:

1. PU internal casing cutters and RIH. Cut casing at +/- 30' from surface.
2. POOH, LD cutters and casing.
3. PU 7 3/8" overshoot with 4 1/2" right hand standard wicker grapple, 1 - 4 3/4" drill collar with 3 1/2" IF threads, pup joint, manual bumper sub, and crossovers. If casing cut is deeper than ±30' utilize >7000 ft-lb torque pipe as needed. Pull a minimum of 10,000# to keep grapple engaged if cement top is high (<~900'). If cement top is low (>~900'), more weight will be required to put casing in neutral. Torque casing string to ±7000 ft-lbs, count number of turns to make-up, and document in the daily report. Ensure that tongs are safely anchored to rig and that all personnel are at a safe working distance from the tongs during torque-up and torque release. After initial make-up, place pipe torque to neutral and mark pipe. Place ±7000 ft-lbs on casing a second time, count turns, then return pipe torque to neutral and count turns. Repeat if torque-up turns do not equal torque release turns. Once torque-in equals torque-out, release overshoot, POOH, and lay down.
4. TIH w/ skirted mill and dress off the fish top for approximately 1/2 hour. TOOH.
5. PU & RIH w/ 4 1/2" 10k external casing patch on 4 1/2" P-110 casing. Ensure that sliding sleeve assembly shifts ±3' and casing tags no-go portion of patch. NOTE: Shear pins will shear at 3500 to 4500 lbs.
6. Latch fish, PU to 100,000# tension. RU B&C. Cycle pressure test to 7,000# / 9,000# psi.
7. Install slips. Land casing w/ 80,000# tension.
8. Cut-off and dress 4 1/2" casing stub.
9. NUWH. PU 3 7/8" bit, POBS and RIH. D/O cement and plug ~6173'. Clean out to PBTD (9576').
10. POOH, land tbg and pump off POBS.
11. NUWH, RDMO. Turn well over to production ops.

BACK-OFF PROCEDURE:

1. PU internal casing cutters and RIH. Cut casing at +/- 6' from surface.
2. POOH, LD cutters and casing.
3. PU 4 1/2" overshoot. RIH, latch fish. Pick string weight to neutral.
4. MIRU casing crew and wireline services. RIH and shoot string shot at casing collar @ ± 46'.
5. Back-off casing, POOH.

6. PU new casing joint with buttress threads and entry guide and RIH. Tag casing top. Thread into casing and torque up to ± 7000 ft-lbs, count number of additional turns to make-up, and document in the daily report. Ensure that tongs are safely anchored to rig and that all personnel are at a safe working distance from the tongs during torque-up and torque release. After initial make-up, place pipe torque to neutral and mark pipe. Place ± 7000 ft-lbs on casing a second time, count turns, then return pipe torque to neutral and count turns. Repeat if torque-up turns do not equal torque release turns. Once torque-in equals torque-out go to step 7.
7. PU 100,000# tension string weight. RU B&C. Cycle pressure test to 7,000# / 9,000# psi.
8. Install slips. Land casing w/ 80,000# tension.
9. Cut-off and dress 4 1/2" casing stub.
10. NUWH. PU 3 7/8" bit, POBS and RIH. D/O cement and plug ~6173'. Clean out to PBTD (9576').
11. POOH, land tbg and pump off POBS.
12. NUWH, RDMO. Turn well over to production ops.



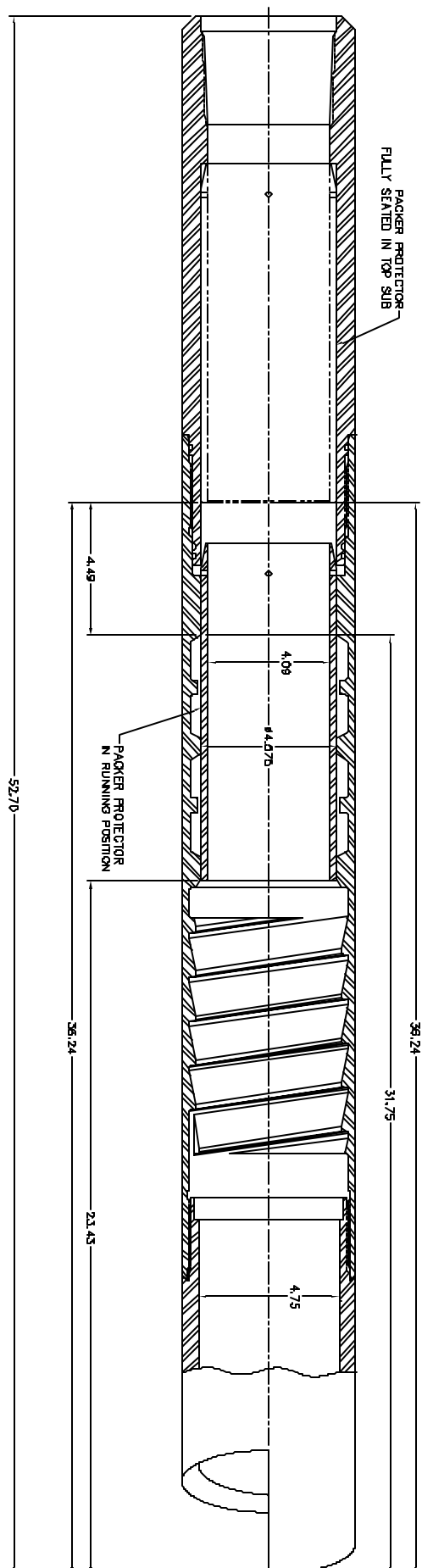
Logan High Pressure Casing Patches Assembly Procedure

All parts should be thoroughly greased before being assembled.

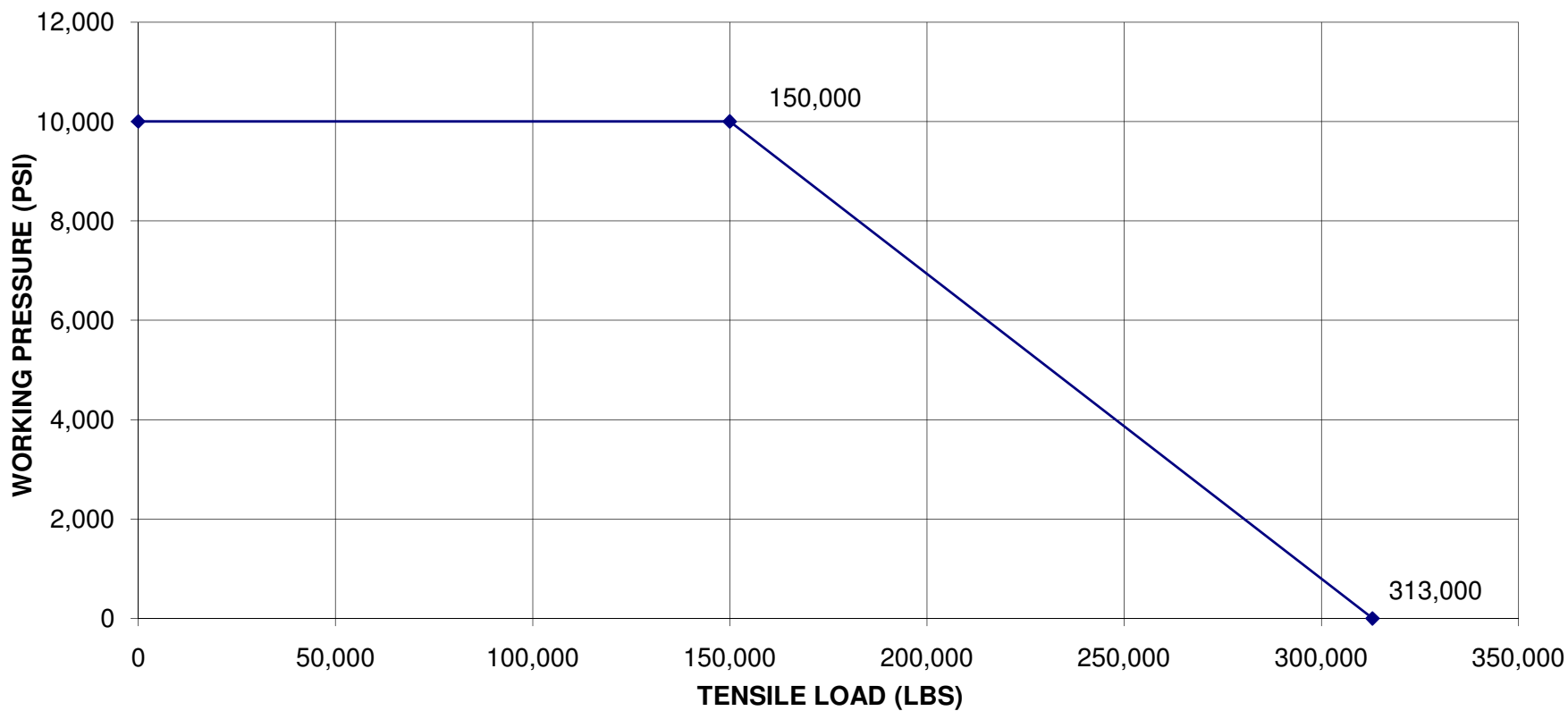
1. Install all four Logan Type "L" Packers in the spaces provided in the Casing Patch Bowl. Refer to diagram provided for proper installation.
2. Install Packer Protector from the Basket Grapple end of the Bowl. The beveled end of the Packer Protector goes in first. Carefully push the Packer Protector through the four Type "L" Packers.
3. Align Shear Pin Holes in Packer Protector so that the holes have just passed into the counter bore at the Top Sub end, refer to diagram. The Packer Protector is provided with four Shear Pin Holes. Use only two holes, 180 degrees apart and install the pins.
4. Screw the Basket Grapple in from the lower end of the Bowl, using left-hand rotation. The Tang Slot in the Basket Grapple must land in line with the slot in the Bowl.
5. Insert the Basket Grapple Control into the end of the Bowl. Align Tang on the Basket Grapple Control with the Tang Slot of the Bowl and Basket Grapple. This secures the Bowl and the Basket Grapple together.
6. Install the Cutlipped Guide into the lower end of the Bowl.
7. Install O-Rings on the two five-foot long Extensions. Screw the first Extension into the top end of the Bowl. Screw the second Extension into the top end of the first Extension.
8. Install O-Ring on Top Sub. Screw Top Sub into top end of second Extension.

Follow recommended Make-Up Torque as provided in chart.

510L-005-001 4-1/2" LOGAN HP CASING PATCH



**STRENGTH DATA FOR LOGAN 5.88" OD "L" TYPE CSG PATCH
4-1/2 CASING, 10K PSI MAX WP 125K YIELD MAT'L
LOGAN ASSEMBLY NO. 510L-005 -000**



COLLAPSE PRESSURE:
11,222 PSI @ 0 TENSILE
8,634 PSI @ 220K TENSILE

Tensile Strength @ Yield:
Tensile Strength w/ 0 Int. Press.= 472,791lbs.
Tensile Strength w/ 10K Int. Press.= 313,748lbs.

DATA BY SLS 11/16/2009

RECEIVED Apr. 11, 2011

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: ML 23608
1. TYPE OF WELL Gas Well		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		8. WELL NAME and NUMBER: NBU 1021-13H4AS
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0652 FNL 1287 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENE Section: 13 Township: 10.0S Range: 21.0E Meridian: S		9. API NUMBER: 43047503400000
PHONE NUMBER: 720 929-6515 Ext		9. FIELD and POOL or WILDCAT: NATURAL BUTTES
COUNTY: UINTAH		STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> ALTER CASING <input checked="" type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> DEEPEN <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> PLUG BACK <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> APD EXTENSION <input type="checkbox"/> WILDCAT WELL DETERMINATION <input checked="" type="checkbox"/> OTHER	
<input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 6/7/2011	OTHER: <input style="width: 100px;" type="text" value="Wellhead Repair"/>	
<input type="checkbox"/> SPUD REPORT Date of Spud:		
<input type="checkbox"/> DRILLING REPORT Report Date:		
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. THE OPERATOR HAS CONCLUDED WELLHEAD/CASING REPAIRS ON THE SUBJECT WELL LOCATION. PLEASE SEE THE ATTACHED CHRONOLOGICAL HISTORY FOR DETAILS OF THE OPERATIONS.		
Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY		
NAME (PLEASE PRINT) Gina Becker	PHONE NUMBER 720 929-6086	TITLE Regulatory Analyst II
SIGNATURE N/A	DATE 6/7/2011	

US ROCKIES REGION

Operation Summary Report

Well: NBU 1021-13H4AS GREEN				Spud Conductor: 11/2/2009			Spud Date: 11/6/2009			
Project: UTAH-UINTAH				Site: NBU 1021-13A PAD				Rig Name No: LEED 698/698		
Event: WELL WORK EXPENSE				Start Date: 5/19/2011				End Date: 5/24/2011		
Active Datum: DFE @0.00ft (above Mean Sea Level)				UWI: NE/NE/0/10/S/21/E/13/0/0/26/PM/N/652.00/E/0/1,287.00/0/0						
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation		
5/19/2011	7:00 - 7:30	0.50		48		P		HSM RD, RU		
	7:30 - 8:30	1.00		47	A	P		RD, SPOT EQUIPMENT, RU		
	8:30 - 9:30	1.00		47	A	P		KILL TBG, W/ 10 BBLS, ND WH, NU BOPS, RU FLOOR & TBG EQUIPMENT		
	9:30 - 10:00	0.50		31	I	P		UNLAND TBG, LD HANGER,		
	10:00 - 12:30	2.50		31	I	P		POOH W/ 265 JNTS, 2-3/8 L-80 TBG STANDING IN DERRICK		
	12:30 - 13:30	1.00		34	I	P		RU, CUTTERS RIH SET BAKER 4 1/2 10K CBP @ 6226', POOH TOOLS.		
	13:30 - 15:30	2.00		34	D	P		RU, CMT BAILER, RIH DUMP BAILER SPOT 4 SX CLASS "G" CMT ON TOP OF PLUG, (MADE 2 RUNS), RD CUTTERS WIRE LINE , FILL 4 1/2 CSG W/ BBLS T-MAC, SWI, SDFN.		
5/20/2011	7:00 - 7:15	0.25		48		P		HSM WH, CHANGE OUT		
	7:15 - 8:30	1.25		47	A	P		RD, FLOOR ND BOPS, W/ CSG BOWL RU FLOOR, NU PWR SWVL		
	8:30 - 9:30	1.00		47	A	P		PU INTERNAL CUTTER & RIH CUT 4 1/2 CSG 7' F/ SURFACE, POOH LD INTERNAL CUTTER & MANDREL, RD PWR SWVL, PU 4 1/2 OVERSHOT & GRAPPLE W/ BUMPER SUB & 4 1/2 COLLAR RIH LATCH ON TO 4 1/2 CSG FISH TOP TURN CSG 41 TURNS TORQUE TO 7,000 LBS ATTEMPT TO RELEASE OVER SHOT FROM FISH, NO LUCK, BACKEDOFF CSG.		
	9:30 - 10:00	0.50		31	I	P		POOH CUT OFF OVERSHOT LD 1 JNT, CSG,		
	10:00 - 11:00	1.00		31	I	P		PU 4 1/2 PUP, 1 JNT 4 1/2 CSG, RIH SCREW INTO CSG STRING TORQUE TO 7,000 LBS.		
	11:00 - 11:30	0.50		33	C	P		PUMPED 140 BBLS TO FILL 4 1/2 CSG TO PRESSURE TEST, WOULDN'T STAY FULL PLUG LEAKING .		
	11:30 - 13:00	1.50		46	F	P		CALL FOR WIRELINE TO SET ANOTHER CBP PLUG.		
	13:00 - 14:00	1.00		34	I	P		RU RIH, W CUTTERS W/L TO SET BAKER 4 1/2 10K CBP SET @ 6150', POOH RD CUTTERS		
	14:00 - 15:30	1.50		33	D	P		MIRU, B & C QUIK TEST FILL CSG W/ WTR PRESSURE TEST TO 1,000 LBS 15 MINS LOST 0 PRESSURE TO 3,500 LBS 30 MINS, 2 PSI LOST PSI IN 30 MINS, RDMO B&C QUICK. TEST		
	15:30 - 16:15	0.75		47	A	P		INSTALL C-21 SLIPS, LAND 4 1/2 CSG W/ 80,000 LBS TENSION , CUT OFF & DRESS 4 1/2 CSG STUB, INCERT H- PLATE, NU W/H FLANGES		
	16:15 - 17:00	0.75		47	A	P		NU CSG BOWL & BOPS, RU FLOOR & TBG, EQUIPMENT, SWIFWE.		
	5/23/2011	7:00 - 7:30	0.50	ALL	48		P		HSM, REVIEW AIR FOAM UNIT.	
		7:30 - 9:30	2.00	ALL	31	I	P		PU 3-7/8 MILL, POBS, 1.875 XN, & RIH 195 JTS. 2-3/8 L-80 TBG, TAG CBP @ 6150'	
9:30 - 10:00		0.50	ALL	47	A	P		INSTALLED TSF, RU PWR SWVL, D/O 1ST CBP W/ RIG PUMP IN 4 MINS, REMOVE TSF,		
10:00 - 10:30		0.50	ALL	31	I	P		RIH W/ 2-3/8 L-80 TBG & TAG 2ND CBP @ 6642'		
10:30 - 11:00		0.50	ALL	31	H	P		INSTALL TSF, RU PWR SWVL, RU TECH FOAM, BROKE CIRC IN 30 MINS.		
11:00 - 11:15		0.25	ALL	44	C	P		.D/O CBP @ 6642' IN 4 MINS, HAD 100 PSI. INCREASE, LD PWR SWVL, POOH TBG TO REMOVE TSF.		
11:15 - 12:10		0.92	ALL	31	I	P		RIH 2-3/8 L-80 TBG TAG @ 8455', PU PWR SWVL, INSTALL TSF.		

US ROCKIES REGION

Operation Summary Report

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Active Datum: DFE @0.00ft (above Mean Sea Level)		UWI: NE/NE/0/10/S/21/E/13/0/0/26/PM/N/652.00/E/0/1,287.00/0/0			

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	12:10 - 14:00	1.83	ALL	44	D	P		BROKE CIRC IN 20 MINS, DRILL ON OLD POBS, KILL TBG, RD PWR SWVL. REMOVE TSF.
	14:00 - 17:30	3.50	ALL	31	I	P		LD 3 JTS, POOH 94 JTS. 2-3/8 L-80 TBG, WAIT FOR RAIN & LIGHTING TO PASS, CONTINUE POOH TBG (TOTAL OF 265 JTS.) MILL LEFT IN HOLE @ 8455', SWI, SDFN.
5/24/2011	7:00 - 7:30	0.50	ALL	48		P		HSM, REVIEW TRIPPING TBG.
	7:30 - 12:00	4.50	ALL	31	I	P		SICP. 625 PSI. BLEW CSG DWN, CONTROL CSG W/ 55 BBLS, PU 1.875 XN HALF POBS & RIH 145 JTS. 2-3/8 L-80 TBG, RU SWAB EQUIPMENT & BROACH TBG TO EOT @ 4577', LD SWAB EQUIPMENT, FINISH RIH 120 JTS. 2-3/8 L-80 TBG, LAND TBG HANGER, RU SWAB EQUIPMENT, BROACH TBG W/ 1.9 BROACH TO 3800', RD SWAB EQUIPMENT, RD FLOOR & TBG EQUIPMENT, ND BOP'S, NU WH, RDMO.
(TBG DETAIL)								
KB-----13'								
HANGER-----1.0'								
265 JTS. 2-3/8 L-80 TBG @----- 8367.34'								
HALF POBS W/ 1.875 XN-----2.20'								
EOT @-----8383.54'								
TAG OLD POBS @ 8455' & LEFT 2ND MILL IN HOLE @ 8455'								
TOP PERF @ 6273'								
BTM PERF @ 9267'								
API # 43047503400000								